CDX-S2210/S2210S/S2210X/ S2250EE/SW330

SERVICE MANUAL

Ver. 1.3 2005. 11

US Model
CDX-S2210/SW330
Canadian Model
CDX-S2210
E Model
CDX-S2210S/S2210X
East European Model
CDX-S2250EE

Photo: CDX-S2250EE

• The tuner and CD sections have no adjustments.

Model Name Using Similar Mechanism	NEW
CD Drive Mechanism Type	MG-611TA-186//K
Optical Pick-up Name	KSS1000E

AUDIO POWER SPECIFICATIONS (US Model)
POWER OUTPUT AND TOTAL HARMONIC DISTORTION
23.2 watts per channel minimum continuous average power into 4 ohms, 4 channels driven from 20 Hz to 20 kHz with no more than 5% total harmonic distortion.

SPECIFICATIONS

CD player section

Signal-to-noise ratio	120 dB
Frequency response	10 – 20,000 Hz
Wow and flutter	Below measurable limit

Tuner section

FM

Tuning range	US, Canadian Model: 87.5 – 107.9 MHz E model: FM tuning interval: 50 kHz/200 kHz switchable 87.5 – 108 MHz (at 50 kHz step) 87.5 – 107.9 MHz (at 200 kHz step) East European Model: FM1/FM2: 87.5 – 108.0 MHz (at 50 kHz step) FM3: 65 – 74 MHz (at 30 kHz step)
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz/450 kHz
Usable sensitivity	9 dBf
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	67 dB (stereo), 69 dB (mono)
Harmonic distortion at 1 kHz	0.5% (stereo), 0.3% (mono)
Separation	35 dB at 1 kHz
Frequency response	30 – 15,000 Hz

AM

Tuning range	US, Canadian Model: 530 – 1,710 kHz E Model: AM tuning interval: 9 kHz/10 kHz switchable 531 – 1,602 kHz (at 9 kHz step) 530 – 1,710 kHz (at 10 kHz step) East European Model: 531 – 1,602 kHz
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz/450 kHz
Sensitivity	30 µV

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 – 8 ohms
Maximum power output	Except East European model: 52 W × 4 (at 4 ohms) East European model: 50 W × 4 (at 4 ohms)

General

Outputs	Audio outputs terminal (sub/rear switchable) Power antenna relay control terminal Power amplifier control terminal
Inputs	Antenna input terminal Remote controller input terminal (CDX-S2210C only)

– Continued on next page –

FM/AM COMPACT DISC PLAYER

9-879-323-04
2005K04-1
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Sony Corporation
eVehicle Division
Published by Sony Engineering Corporation

SONY®

Tone controls	Low: ±10 dB at 60 Hz (XPLOD) Mid: ±10 dB at 1 kHz (XPLOD) High: ±10 dB at 10 kHz (XPLOD)
Power requirements	12 V DC car battery (negative ground)
Dimensions	Approx. 178 × 50 × 178 mm (7 1/8 × 2 × 7 1/8 in.) (w/h/d)
Mounting dimensions	Approx. 182 × 53 × 161 mm (7 1/4 × 2 1/8 × 6 3/8 in.) (w/h/d)
Mass	Approx. 1.2 kg (2 lb. 10 oz.)
Supplied accessories	Card remote commander: RM-X151 (CDX-S2210S/SW330 only) Parts for installation and connections (1 set) Front panel case (1)

Design and specifications are subject to change without notice.

SERVICE NOTES

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

Notes on Chip Component Replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

TEST DISCS

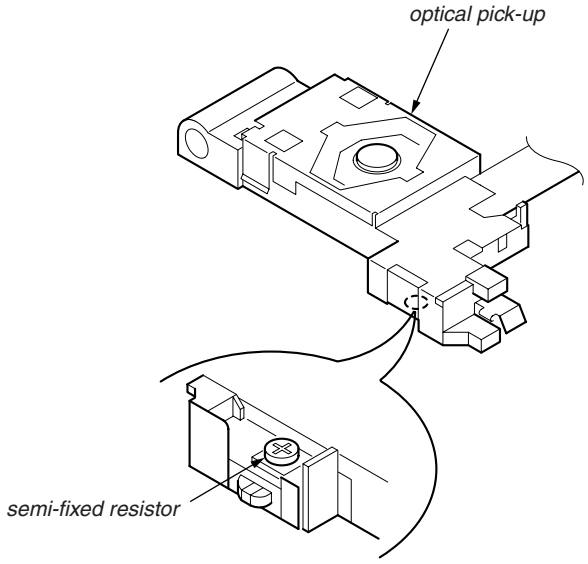
This set can playback CD-R and CD-ROM discs. The following test discs should be used to check the capability:

CD-R test disc TCD-R082LMT (Part No. J-2502-063-1)
CD-RW test disc TCD-W082L (Part No. J-2502-063-2)

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

If the optical pick-up block is defective, please replace the whole optical pick-up block.
Never turn the semi-fixed resistor located at the side of optical pick-up block.



• E, East European Model

This label is located on the bottom of the chassis.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

• CD Playback:
You can play CD-DA (also containing CD TEXT*[1]), CD-R/CD-RW (MP3 files also containing Multi Session and ATRAC CD (ATRAC3 and ATRAC3plus format).

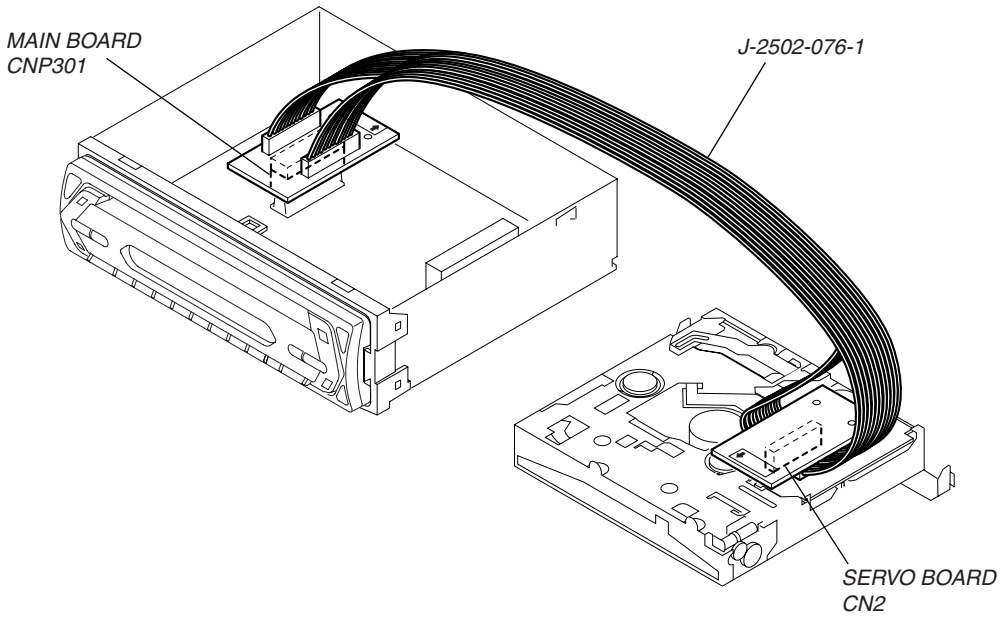
Type of discs	Label on the disc
CD-DA	COMPACT disc DIGITAL AUDIO Recordable COMPACT disc DIGITAL AUDIO ReWritable
MP3 ATRAC CD	COMPACT disc DIGITAL AUDIO Recordable COMPACT disc DIGITAL AUDIO ReWritable COMPACT disc Recordable COMPACT disc ReWritable

*1 A CD TEXT disc is a CD-DA that includes information such as disc, artist and track name.

EXTENSION CABLE AND SERVICE POSITION

When repairing or servicing this set, connect the jig (extension cable) as shown below.

• Connect the MAIN board (CNP301) and the SERVO board (CN2) with the extension cable (Part No. J-2502-076-1).



● UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the lead free mark (LF) indicating the solder contains no lead.
(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size.)

: LEAD FREE MARK

Unleaded solder has the following characteristics.

• Unleaded solder melts at a temperature about 40°C higher than ordinary solder.
Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
Soldering irons using a temperature regulator should be set to about 350°C.
Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!

• Strong viscosity
Unleaded solder is more viscous (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.

• Usable with ordinary solder
It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

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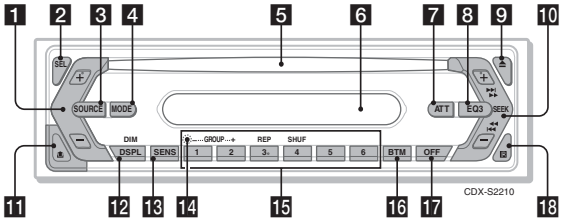
SECTION 1
GENERAL

This section is extracted from instruction manual.

Location of controls and basic operations

Main unit (CDX-S2210)



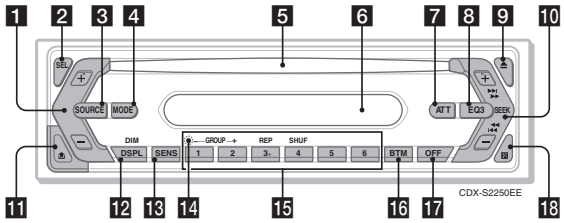
Refer to the pages listed for details.

1 Volume +/– button
To adjust volume.
2 SEL (select) button 4, 7
To select items.
3 SOURCE button
To power on/change the source (Radio/CD).
4 MODE button 6
To select the radio band (FM/AM).
5 Disc slot
Insert the disc (label side up), playback starts.
6 Display window
7 ATT (attenuate) button
To attenuate the sound. To cancel, press again.
8 EQ3 (equalizer) button 7
To select an equalizer type (XPLOD, VOCAL, CLUB, JAZZ, NEW AGE, ROCK, CUSTOM or OFF).
9 ⏏ (eject) button
To eject the disc.
10 SEEK +/– button
Radio:
To tune in stations automatically (press); find a station manually (press and hold).
CD:
To skip tracks (press); skip tracks continuously (press, then press again within about 1 second and hold); fast-forward/reverse a track (press and hold).
11 (front panel release) button 4
12 DSPL (display)/DIM (dimmer) button 4, 6
To change display items (press); change the display brightness (press and hold).
13 SENS button
To improve weak reception: LOCAL/MONO.
14 RESET button (located behind the front panel) 4
15 Number buttons
Radio:
To receive stored stations (press); store stations (press and hold).
CD:
①/②: **GROUP*** –/+
To skip groups (press); skip groups continuously (press and hold).
③: **REP** 6
④: **SHUF** 6
16 BTM button 6
To start the BTM function (press and hold).
17 OFF button
To power off/stop the source.
18 Receptor for the card remote commander 8

** When an MP3/ATRAC CD is played.*

Location of controls and basic operations

Main unit (CDX-S2250EE)



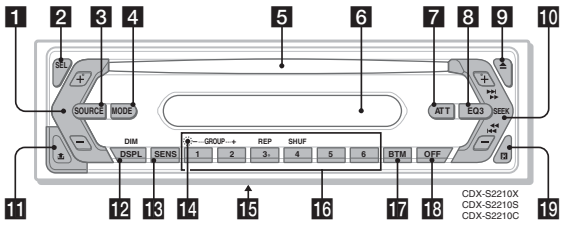
Refer to the pages listed for details.

1 Volume +/– button
To adjust volume.
2 SEL (select) button 4, 7
To select items.
3 SOURCE button
To power on/change the source (Radio/CD).
4 MODE button 6
To select the radio band (FM/AM).
5 Disc slot
Insert the disc (label side up), playback starts.
6 Display window
7 ATT (attenuate) button
To attenuate the sound. To cancel, press again.
8 EQ3 (equalizer) button 7
To select an equalizer type (XPLOD, VOCAL, CLUB, JAZZ, NEW AGE, ROCK, CUSTOM or OFF).
9 ⏏ (eject) button
To eject the disc.
10 SEEK +/– button
Radio:
To tune in stations automatically (press); find a station manually (press and hold).
CD:
To skip tracks (press); skip tracks continuously (press, then press again within about 1 second and hold); fast-forward/reverse a track (press and hold).
11 (front panel release) button 4
12 DSPL (display)/DIM (dimmer) button 4
To change display items (press); change the display brightness (press and hold).
13 SENS button
To improve weak reception: LOCAL/MONO.
14 RESET button (located behind the front panel) 4
15 Number buttons
Radio:
To receive stored stations (press); store stations (press and hold).
CD:
①/②: **GROUP*** –/+
To skip groups (press); skip groups continuously (press and hold).
③: **REP** 6
④: **SHUF** 6
16 BTM button 6
To start the BTM function (press and hold).
17 OFF button
To power off/stop the source.
18 Receptor for the card remote commander 8

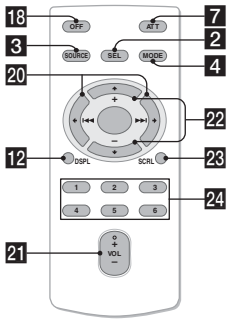
** When an MP3/ATRAC CD is played.*

Location of controls and basic operations

Main unit (CDX-S2210S/S2210X)



Card remote commander RM-X151
(CDX-S2210S only)



Refer to the pages listed for details. The corresponding buttons on the card remote commander control the same functions as those on the unit.

1 Volume +/– button
To adjust volume.
2 SEL (select) button 4, 9
To select items.
3 SOURCE button
To power on/change the source (Radio/CD).
4 MODE button 8
To select the radio band (FM/AM).
5 Disc slot
Insert the disc (label side up), playback starts.
6 Display window
7 ATT (attenuate) button
To attenuate the sound. To cancel, press again.
8 EQ3 (equalizer) button 9
To select an equalizer type (XPLOD, VOCAL, CLUB, JAZZ, NEW AGE, ROCK, CUSTOM or OFF).
9 ⏏ (eject) button
To eject the disc.
10 SEEK +/– button
Radio:
To tune in stations automatically (press); find a station manually (press and hold).
CD:
To skip tracks (press); skip tracks continuously (press, then press again within about 1 second and hold); fast-forward/reverse a track (press and hold).
11 (front panel release) button 4
12 DSPL (display)/DIM (dimmer) button 4, 8
To change display items (press); change the display brightness (press and hold).
13 SENS button
To improve weak reception: LOCAL/MONO.
14 RESET button (located behind the front panel) 4
15 Frequency select switch (located on the bottom of the unit)
See "Frequency select switch" in the supplied installation/connections manual.
16 Number buttons
Radio:
To receive stored stations (press); store stations (press and hold).
CD:
①/②: **GROUP*** –/+
To skip groups (press); skip groups continuously (press and hold).
③: **REP** 8
④: **SHUF** 8
17 BTM button 8
To start the BTM function (press and hold).
18 OFF button
To power off/stop the source.
19 Receptor for the card remote commander 10

The following buttons on the card remote commander have also different buttons/functions from the unit.

20 ⬅ (I◀◀)/➡ (▶▶I) buttons
To control radio/CD, the same as (SEEK) +/– on the unit. (For details of other operations, see "With the card remote commander" on each pages.)
21 VOL +/– button
To adjust volume.
22 ⬆ (+)/⬇ (–) buttons
To control CD, the same as ①/② –/+ on the unit. (For details of other operations, see "With the card remote commander" on each pages.)
23 SCRL button
To scroll the display item.
24 Number buttons
To receive stored stations (press); store stations (press and hold).

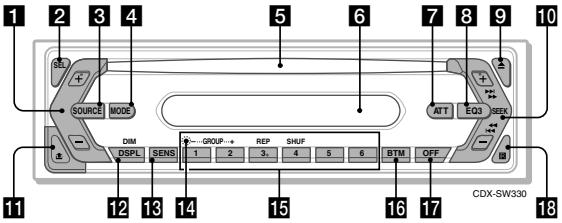
** When an MP3/ATRAC CD is played.*

Note
If the unit is turned off and the display disappears, it cannot be operated with the card remote commander unless (SOURCE) on the unit is pressed, or a disc is inserted to activate the unit first.

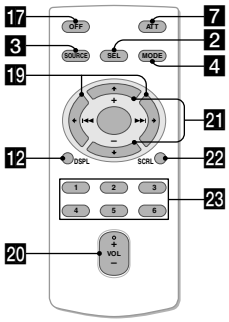
Tip
For details on how to replace the battery, see "Replacing the lithium battery of the card remote commander" on page 13.

Location of controls and basic operations

Main unit (CDX-SW330)



Card remote commander RM-X151



Refer to the pages listed for details. The corresponding buttons on the card remote commander control the same functions as those on the unit.

1 Volume +/– button
To adjust volume.

2 SEL (select) button 4, 9, 9, 9
To select items.

3 SOURCE button
To power on/change the source (Radio/CD).

4 MODE button 8
To select the radio band (FM/AM).

5 Disc slot
Insert the disc (label side up), playback starts.

6 Display window

7 ATT (attenuate) button
To attenuate the sound. To cancel, press again.

8 EQ3 (equalizer) button 9
To select an equalizer type (XPLOD, VOCAL, CLUB, JAZZ, NEW AGE, ROCK, CUSTOM or OFF).

9 ⏏ (eject) button
To eject the disc.

10 SEEK +/– button
Radio:
To tune in stations automatically (press); find a station manually (press and hold).
CD:
To skip tracks (press); skip tracks continuously (press, then press again within about 1 second and hold); fast-forward/reverse a track (press and hold).

11 ⏏ (front panel release) button 4

12 DSPL (display)/DIM (dimmer) button 4, 8
To change display items (press); change the display brightness (press and hold).

13 SENS button
To improve weak reception: LOCAL/MONO.

14 RESET button (located behind the front panel) 4

15 Number buttons
Radio:
To receive stored stations (press); store stations (press and hold).
CD:
①/②: **GROUP*** –/+
To skip groups (press); skip groups continuously (press and hold).
③: **REP** 8
④: **SHUF** 8

16 BTM button 8
To start the BTM function (press and hold).

17 OFF button
To power off/stop the source.

18 Receptor for the card remote commander

The following buttons on the card remote commander have also different buttons/functions from the unit.

19 ⬅ (I◀◀)/➡ (▶▶I) buttons
To control radio/CD, the same as (SEEK) +/– on the unit. (For details of other operations, see "With the card remote commander" on each pages.)

20 VOL +/– button
To adjust volume.

21 ⬆ (+)/⬇ (–) buttons
To control CD, the same as ①/② –/+ on the unit. (For details of other operations, see "With the card remote commander" on each pages.)

22 SCRL button
To scroll the display item.

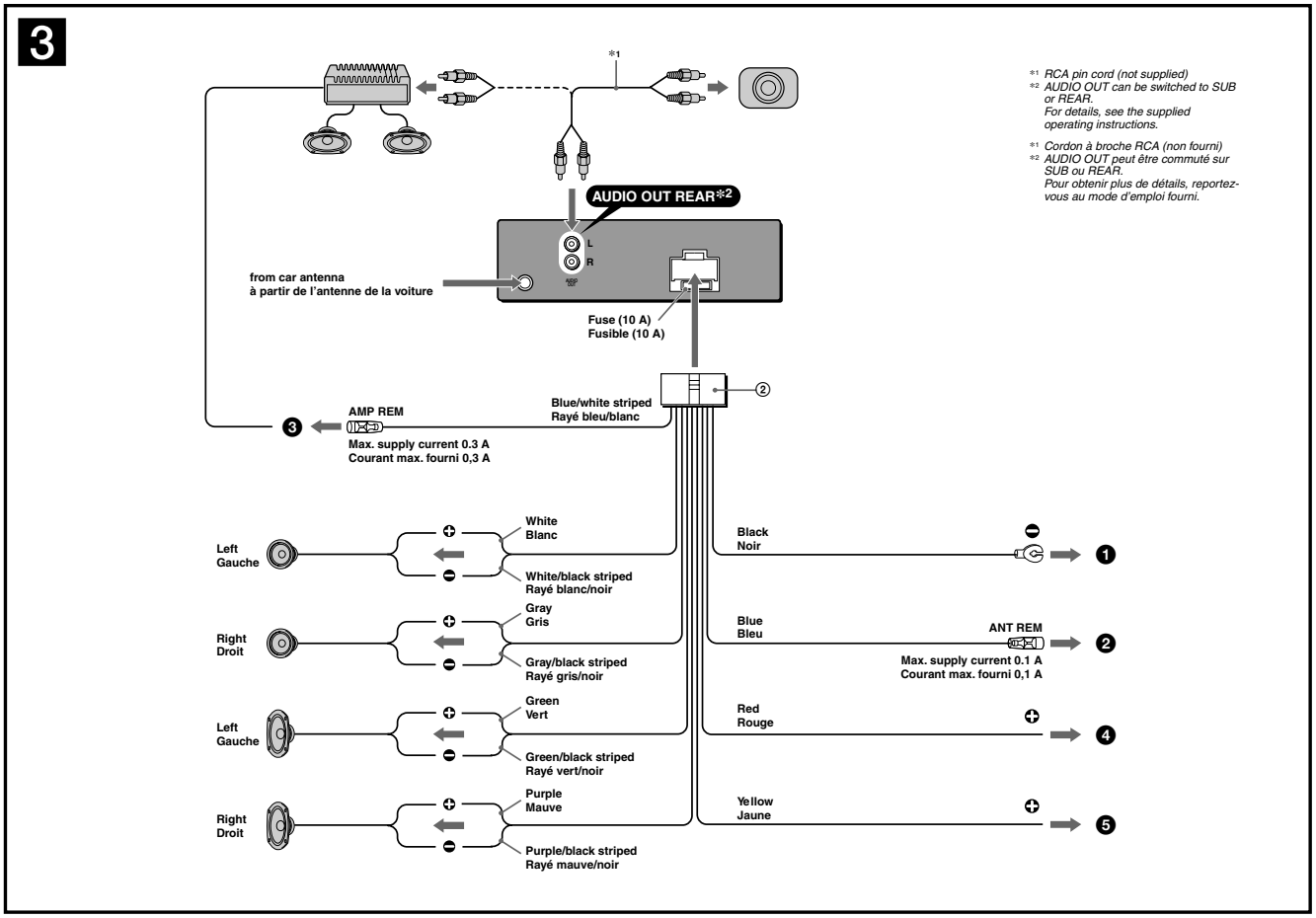
23 Number buttons
To receive stored stations (press); store stations (press and hold).

* *When an MP3/ATRAC CD is played.*

Note
If the unit is turned off and the display disappears, it cannot be operated with the card remote commander unless (SOURCE) on the unit is pressed, or a disc is inserted to activate the unit first.

Tip
For details on how to replace the battery, see "Replacing the lithium battery of the card remote commander" on page 11.

Connections (CDX-S2210)



Connection diagram (3)

❶ To a metal surface of the car
First connect the black ground lead, then connect the yellow and red power input leads.

❷ To the power antenna control lead or power supply lead of antenna booster amplifier
Notes
- *It is not necessary to connect this lead if there is no power antenna or antenna booster, or with a manually-operated telescopic antenna.*
- *When your car has a built-in FM/AM antenna in the rear/side glass, see "Notes on the control and power supply leads."*

❸ To AMP REMOTE IN of an optional power amplifier
This connection is only for amplifiers. Connecting any other system may damage the unit.

❹ To the +12 V power terminal which is energized in the accessory position of the ignition key switch
Notes
- *If there is no accessory position, connect to the +12 V power (battery) terminal which is energized at all times. Be sure to connect the black ground lead to a metal surface of the car first.*
- *When your car has a built-in FM/AM antenna in the rear/side glass, see "Notes on the control and power supply leads."*

❺ To the +12 V power terminal which is energized at all times
Be sure to connect the black ground lead to a metal surface of the car first.

Notes on the control and power supply leads
- *The power antenna control lead (blue) supplies +12 V DC when you turn on the tuner.*
- *When your car has built-in FM/AM antenna in the rear/side glass, connect the power antenna control lead (blue) or the accessory power input lead (red) to the power terminal of the existing antenna booster. For details, consult your dealer.*
- *A power antenna without a relay box cannot be used with this unit.*

Memory hold connection
When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition switch is turned off.

Notes on speaker connection
- *Before connecting the speakers, turn the unit off.*
- *Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities to avoid its damage.*
- *Do not connect the speaker terminals to the car chassis, or connect the terminals of the right speakers with those of the left speaker.*
- *Do not connect the ground lead of this unit to the negative (–) terminal of the speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Connect only passive speakers. Connecting active speakers (with built-in amplifiers) to the speaker terminals may damage the unit.*
- *To avoid a malfunction, do not use the built-in speaker leads installed in your car if the unit shares a common negative (–) lead for the right and left speakers.*
- *Do not connect the unit's speaker leads to each other.*

Note on connection
If speaker and amplifier are not connected correctly, "FAILURE" appears in the display. In this case, make sure the speaker and amplifier are connected correctly.

Schéma de raccordement (3)

❶ À un point métallique de la voiture
Branchez d'abord le câble de mise à la masse noir et, ensuite, les câbles d'entrée d'alimentation jaune et rouge.

❷ Vers le câble de commande d'antenne électrique ou le câble d'alimentation de l'amplificateur d'antenne
Remarques
- *Il n'est pas nécessaire de raccorder ce câble s'il n'y a pas d'antenne électrique ni d'amplificateur d'antenne, ou avec une antenne télescopique manuelle.*
- *Si votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, voir « Remarques sur les câbles de commande et d'alimentation ».*

❸ Au niveau de AMP REMOTE IN de l'amplificateur de puissance en option
Ce raccordement s'applique uniquement aux amplificateurs. Le branchement de tout autre système risque d'endommager l'appareil.

❹ À la borne +12 V qui est alimentée quand la clé de contact est sur la position accessoires
Remarques
- *S'il n'y a pas de position accessoires, raccordez la borne d'alimentation (batterie) +12 V qui est alimentée en permanence. Raccordez d'abord le câble de mise à la masse noir à un point métallique du véhicule.*
- *Si votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, voir « Remarques sur les câbles de commande et d'alimentation ».*

❺ À la borne +12 V qui est alimentée en permanence
Raccordez d'abord le câble de mise à la masse noir à un point métallique du véhicule.

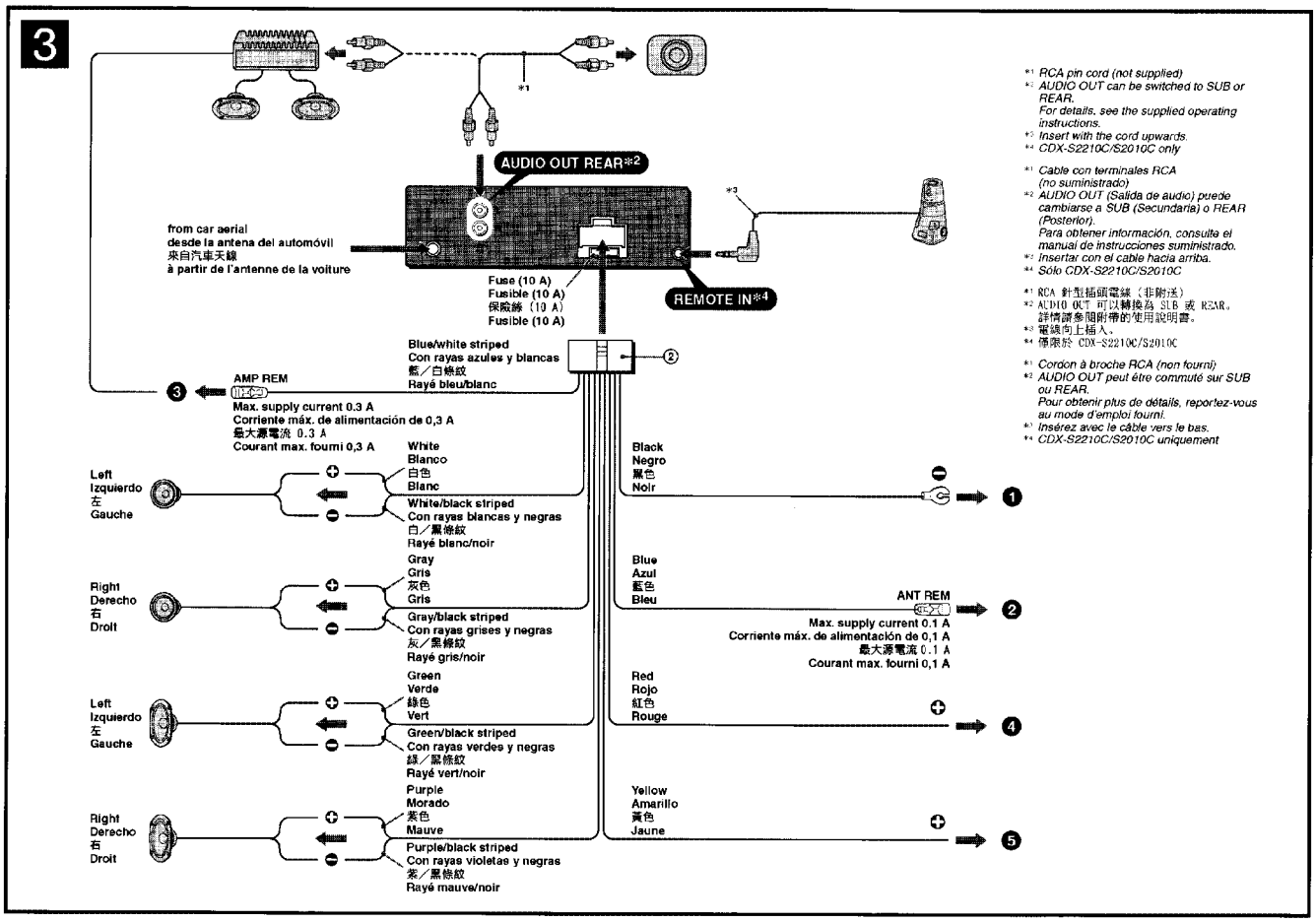
Remarques sur les câbles de commande et d'alimentation
- *Le câble de commande d'antenne électrique (bleu) fournit une alimentation de + 12 V CC lorsque vous mettez la radio sous tension.*
- *Lorsque votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, raccordez le câble de commande d'antenne (bleu) ou l'entrée d'alimentation des accessoires (rouge) à la borne d'alimentation de l'amplificateur d'antenne existant. Pour plus de détails, consultez votre détaillant.*
- *Une antenne électrique sans boîtier de relais ne peut pas être utilisée avec cet appareil.*

Raccordement pour la conservation de la mémoire
Lorsque le câble d'entrée d'alimentation jaune est raccordé, le circuit de la mémoire est alimenté en permanence même si la clé de contact est sur la position d'arrêt.

Remarques sur le raccordement des haut-parleurs
- *Avant de raccorder les haut-parleurs, mettez l'appareil hors tension.*
- *Utilisez des haut-parleurs ayant une impédance de 4 à 8 ohms avec une capacité électrique adéquate pour éviter de les endommager.*
- *Ne raccordez pas les bornes du système de haut-parleurs au châssis de la voiture et ne raccordez pas les bornes des haut-parleurs droit à celles du haut-parleur gauche.*
- *Ne raccordez pas le câble de mise à la masse de cet appareil à la borne négative (–) du haut-parleur.*
- *N'essayez pas de raccorder les haut-parleurs en parallèle.*
- *Raccordez uniquement des haut-parleurs passifs. Le raccordement de haut-parleurs actifs (avec amplificateurs intégrés) aux bornes des haut-parleurs peut endommager l'appareil.*
- *Pour éviter tout dysfonctionnement, n'utilisez pas les câbles des haut-parleurs intégrés installés dans votre voiture si l'appareil partage un câble négatif commun (–) pour les haut-parleurs droit et gauche.*
- *Ne raccordez pas entre eux les cordons des haut-parleurs de l'appareil.*

Remarque sur le raccordement
Si les haut-parleurs et l'amplificateur ne sont pas raccordés correctement, le message « FAILURE » s'affiche. Dans ce cas, assurez-vous que les haut-parleurs et l'amplificateur sont bien raccordés.

Connections (CDX-S2210S/S2210X)



*1 RCA pin cord (not supplied)
*2 AUDIO OUT can be switched to SUB or REAR.
For details, see the supplied operating instructions.
*3 Insert with the cord upwards.
*4 CDX-S2210C/S2010C only

*1 Cable con terminales RCA (no suministrado)
*2 AUDIO OUT (Salida de audio) puede cambiarse a SUB (Secundaria) o REAR (Posterior).
Para obtener información, consulte el manual de instrucciones suministrado.
*3 Insertar con el cable hacia arriba.
*4 Sólo CDX-S2210C/S2010C

*1 RCA 針型插頭電線（非附送）
*2 AUDIO OUT 可以轉換為 SUB 或 REAR。
詳情請參閱附帶的使用說明書。
*3 電線向上插入。
*4 僅限於 CDX-S2210C/S2010C

*1 Cordon à broche RCA (non fourni)
*2 AUDIO OUT peut être commuté sur SUB ou REAR.
Pour obtenir plus de détails, reportez-vous au mode d'emploi fourni.
*3 Insérez avec le câble vers le bas.
*4 CDX-S2210C/S2010C uniquement

Connection diagram (3)

1 To a metal surface of the car
First connect the black earth lead, then connect the yellow and red power input leads.

2 To the power aerial control lead or power supply lead of aerial booster amplifier
Notes
- *It is not necessary to connect this lead if there is no power aerial or aerial booster, or with a manually-operated telescopic aerial.*
- *When your car has a built-in FM/AM aerial in the rear/side glass, see "Notes on the control and power supply leads."*

3 To AMP REMOTE IN of an optional power amplifier
This connection is only for amplifiers. Connecting any other system may damage the unit.

4 To the +12 V power terminal which is energized in the accessory position of the ignition key switch
Notes
- *If there is no accessory position, connect to the +12 V power (battery) terminal which is energized at all times. Be sure to connect the black earth lead to a metal surface of the car first.*
- *When your car has a built-in FM/AM aerial in the rear/side glass, see "Notes on the control and power supply leads."*

5 To the +12 V power terminal which is energized at all times
Be sure to connect the black earth lead to a metal surface of the car first.

Notes on the control and power supply leads
- *The power aerial control lead (blue) supplies +12 V DC when you turn on the tuner.*
- *When your car has built-in FM/AM aerial in the rear/side glass, connect the power aerial control lead (blue), or the accessory power input lead (red), to the power terminal of the existing aerial booster. For details, consult your dealer.*
- *A power aerial without a relay box cannot be used with this unit.*

Memory hold connection
When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition switch is turned off.

Notes on speaker connection
- *Before connecting the speakers, turn the unit off.*
- *Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities to avoid its damage.*
- *Do not connect the speaker terminals to the car chassis, or connect the terminals of the right speakers with those of the left speaker.*
- *Do not connect the earth lead of this unit to the negative (–) terminal of the speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Connect only passive speakers. Connecting active speakers (with built-in amplifiers) to the speaker terminals may damage the unit.*
- *To avoid a malfunction, do not use the built-in speaker leads installed in your car if the unit shares a common negative (–) lead for the right and left speakers.*
- *Do not connect the unit's speaker leads to each other.*

Note on connection
If speaker and amplifier are not connected correctly, "FAILURE" appears in the display. In this case, make sure the speaker and amplifier are connected correctly.

Diagrama de conexión (3)

1 A una superficie metálica del automóvil
Conecte primero el cable de conexión a masa negro, y después los cables amarillo y rojo de entrada de alimentación.

2 Al cable de control de la antena motorizada o al cable de fuente de alimentación del amplificador de señal de la antena
Notas
- *Si no se dispone de antena motorizada ni de amplificador de antena, o se utiliza una antena telescópica accionada manualmente, no será necesario conectar este cable.*
- *Si el automóvil incorpora una antena de FM/AM en el cristal trasero o lateral, consulte "Notas sobre los cables de control y de fuente de alimentación".*

3 A AMP REMOTE IN de un amplificador de potencia opcional
Esta conexión es sólo para amplificadores. La conexión de cualquier otro sistema puede dañar la unidad.

4 Al terminal de alimentación de +12 V que recibe energía en la posición de accesorio del interruptor de la llave de encendido
Notas
- *Si no hay posición de accesorio, conéctelo al terminal de alimentación (batería) de +12 V que recibe energía sin interrupción.*
Asegúrese de conectar primero el cable de conexión a masa negro a una superficie metálica del automóvil.
- *Si el automóvil incorpora una antena de FM/AM en el cristal trasero o lateral, consulte "Notas sobre los cables de control y de fuente de alimentación".*

5 Al terminal de alimentación de +12 V que recibe energía sin interrupción
Asegúrese de conectar primero el cable de conexión a masa negro a una superficie metálica del automóvil.

Notas sobre los cables de control y de fuente de alimentación
- *El cable de control de la antena motorizada (azul) suministrará cc de + 12 V cuando conecte la alimentación del sintonizador.*
- *Si el automóvil dispone de una antena de FM/AM incorporada en el cristal trasero o lateral, conecte el cable de control de antena motorizada (azul) o el cable de entrada de alimentación auxiliar (rojo) al terminal de alimentación del amplificador de antena existente. Para obtener más información, consulte a su distribuidor.*
- *Con esta unidad no es posible utilizar una antena motorizada sin caja de relé.*

Conexión para protección de la memoria
Si conecta el cable de entrada de alimentación amarillo, el circuito de la memoria recibirá siempre alimentación, aunque apague la llave de encendido.

Notas sobre la conexión de los altavoces
- *Antes de conectar los altavoces, desconecte la alimentación de la unidad.*
- *Utilice altavoces con una impedancia de 4 a 8 Ω con la capacidad de potencia adecuada para evitar que se dañen.*
- *No conecte los terminales de altavoz al chasis del automóvil, ni conecte los terminales del altavoz derecho con los del izquierdo.*
- *No conecte el cable de conexión a masa de esta unidad al terminal negativo (–) del altavoz.*
- *No intente conectar los altavoces en paralelo.*
- *Conecte solamente altavoces pasivos. Si conecta altavoces activos (con amplificadores incorporados) a los terminales de altavoz, puede dañar la unidad.*
- *Para evitar fallos de funcionamiento, no utilice los cables de altavoz incorporados instalados en el automóvil si su unidad comparte un cable negativo común (–) para los altavoces derecho e izquierdo.*
- *No conecte los cables de altavoz de la unidad entre sí.*

Nota sobre la conexión
Si el altavoz y el amplificador no están conectados correctamente, aparecerá "FAILURE" en la pantalla. Si es así, compruebe la conexión de ambos dispositivos.

線路連接圖 （3）

1 連接至汽車的金屬表面
首先連接黑色接地導線，然後再連接黃色和紅色電源輸入導線。

2 連接至電動天線控制導線或天線升壓放大器的電源導線
註
- *如無電動天線或天線升壓器，或有手動套管式天線，便不須連接此導線。*
- *您汽車的後／側玻璃窗中裝置有內置 FM/AM 天線，請請參看「控制線和電源線須知」。*

3 連接至選購的功率放大器的 AMP REMOTE IN（放大器遙控輸入）
本連接僅用於放大器。連接任何其它系統可能會損壞本機。

4 連接至在點火鑰匙開關的附件位置上通電的 +12 V 電源端子
註
- *若沒有附件位置，則請連接至始終通電的 +12 V 電源（電池）端子。*
必須首先將黑色接地導線連接至汽車的金屬表面。
- *您汽車的後／側玻璃窗中裝置有內置 FM/AM 天線，請請參看「控制線和電源線須知」。*

5 連接至始終通電的 +12 V 電源端子
必須首先將黑色接地導線連接至汽車的金屬表面。

控制線和電源線須知
- *接通調諧器電源時，電動天線的控制導線（藍色）便能提供 +12 V 直流電。*
- *若您汽車後／側玻璃窗上有內置 FM/AM 天線，須將電動天線控制導線（藍色）或輔助電源輸入導線（紅色）連接到現有天線升壓器上的電源端子上。詳請內容請向銷售商查詢。*
- *本機不能使用不具備繼電器盒的電動天線。*

保持記憶的線路連接法
當連接好黃色電源輸入導線時，即使汽車發動機點火錀匙關閉，電源仍將對記憶電路供電。

連接揚聲器時的注意事項
- *連接揚聲器電線以前，請先關閉本機電源。*
- *使用阻抗為 4-8 Ω 且具有足夠功率處理容量的揚聲器，以免損壞揚聲器。*
- *不要將揚聲器端子連接到車身上，或將右揚聲器端子與左揚聲器端子相連接。*
- *切勿將本機的接地導線連接至揚聲器的負（–）極線端。*
- *揚聲器不可並聯連接。*
- *請僅連接無源揚聲器。若將有源揚聲器（帶內置放大器）連接到揚聲器端子上會損壞本機。*
- *若本裝置使用左、右揚聲器的共用負極（–）導線，為了避免故障，切勿使用已安裝在汽車內的內置揚聲器導線。*
- *請勿將本裝置揚聲器導線相互連接。*

有關連接注意事項
如果未正確連接揚聲器和放大器，則顯示幕上會出現「FAILURE」，此時，請正確連接揚聲器和放大器。

Schéma de raccordement (3)

1 À un point métallique de la voiture
Branchez d'abord le câble de mise à la masse noir et, ensuite, les câbles d'entrée d'alimentation jaune et rouge.

2 Vers le câble de commande d'antenne électrique ou le câble d'alimentation de l'amplificateur d'antenne
Remarques
- *Il n'est pas nécessaire de raccorder ce câble s'il n'y a pas d'antenne électrique ni d'amplificateur d'antenne, ou avec une antenne télescopique manuelle.*
- *Si votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, voir « Remarques sur les câbles de commande et d'alimentation: ».*

3 Au niveau de AMP REMOTE IN de l'amplificateur de puissance en option
Ce raccordement s'applique uniquement aux amplificateurs. Le branchement de tout autre système risque d'endommager l'appareil.

4 À la borne +12 V qui est alimentée quand la clé de contact est sur la position accessoires
Remarques
- *S'il n'y a pas de position accessoires, raccordez la borne d'alimentation (batterie) +12 V qui est alimentée en permanence. Raccordez d'abord le câble de mise à la masse noir à un point métallique du véhicule.*
- *Si votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, voir « Remarques sur les câbles de commande et d'alimentation ».*

5 À la borne +12 V qui est alimentée en permanence
Raccordez d'abord le câble de mise à la masse noir à un point métallique du véhicule.

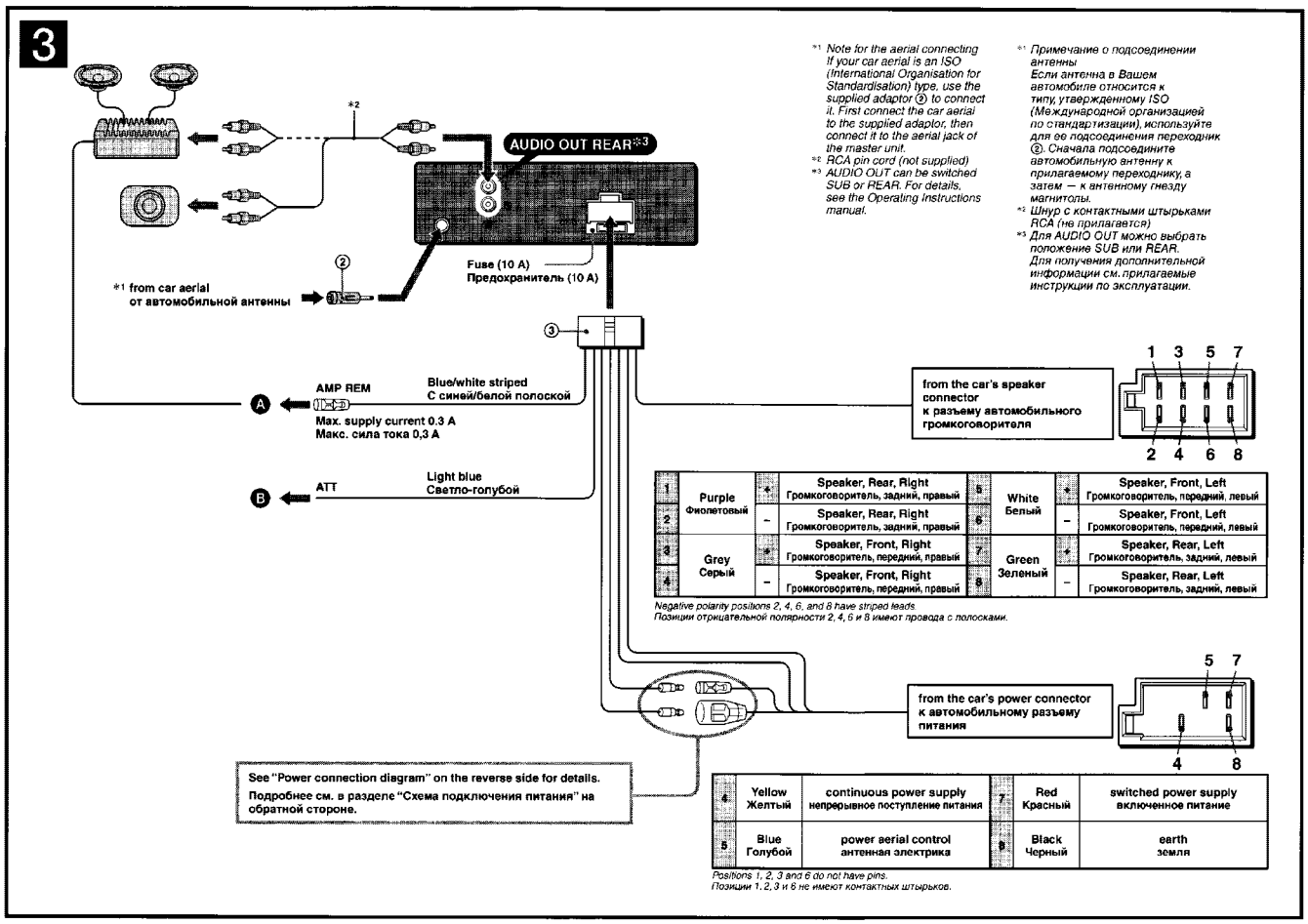
Remarques sur les câbles de commande et d'alimentation
- *Le câble de commande d'antenne électrique (bleu) fournit une alimentation de + 12 V CC lorsque vous mettez la radio sous tension.*
- *Lorsque votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, raccordez le câble de commande d'antenne électrique (bleu ou l'entrée d'alimentation des accessoires (rouge) à la borne d'alimentation de l'amplificateur d'antenne existant. Pour plus de détails, consultez votre détaillant.*
- *Une antenne électrique sans boîtier de relais ne peut pas être utilisée avec cet appareil.*

Raccordement pour la conservation de la mémoire
Lorsque le câble d'entrée d'alimentation jaune est raccordé, le circuit de la mémoire est alimenté en permanence même si la clé de contact est sur la position d'arrêt.

Remarques sur le raccordement des haut-parleurs
- *Avant de raccorder les haut-parleurs, mettez l'appareil hors tension.*
- *Utilisez des haut-parleurs ayant une impédance de 4 à 8 ohms avec une capacité électrique adéquate pour éviter de les endommager.*
- *Ne raccordez pas les bornes du système de haut-parleurs au châssis de la voiture et ne raccordez pas les bornes des haut-parleurs droit à celles du haut-parleur gauche.*
- *Ne raccordez pas le câble de mise à la masse de cet appareil à la borne négative (–) du haut-parleur.*
- *N'essayez pas de raccorder les haut-parleurs en parallèle.*
- *Raccordez uniquement des haut-parleurs passifs. Le raccordement de haut-parleurs actifs (avec amplificateurs intégrés) aux bornes des haut-parleurs peut endommager l'appareil.*
- *Pour éviter tout dysfonctionnement, n'utilisez pas les câbles des haut-parleurs intégrés installés dans votre voiture si l'appareil partage un câble négatif commun (–) pour les haut-parleurs droit et gauche.*
- *Ne raccordez pas entre eux les cordons des haut-parleurs de l'appareil.*

Remarque sur le raccordement
Si les haut-parleurs et l'amplificateur ne sont pas raccordés correctement, le message « FAILURE » s'affiche. Dans ce cas, assurez-vous que les haut-parleurs et l'amplificateur sont bien raccordés.

Connections (CDX-S2250EE)



1	Purple Фиолетовый	+	Speaker, Rear, Right Громкоговоритель, задний, правый	5	White Белый	+	Speaker, Front, Left Громкоговоритель, передний, левый
2		–	Speaker, Rear, Right Громкоговоритель, задний, правый	6		–	Speaker, Front, Left Громкоговоритель, передний, левый
3	Grey Серый	+	Speaker, Front, Right Громкоговоритель, передний, правый	7	Green Зеленый	+	Speaker, Rear, Left Громкоговоритель, задний, левый
4		–	Speaker, Front, Right Громкоговоритель, передний, правый	8		–	Speaker, Rear, Left Громкоговоритель, задний, левый

Negative polarity positions 2, 4, 6, and 8 have striped leads.
Позиции отрицательной полярности 2, 4, 6 и 8 имеют провода с полосками.

4	Yellow Желтый	continuous power supply непрерывное поступление питания	7	Red Красный	switched power supply включенное питание
5	Blue Голубой	power aerial control антенная электрика	8	Black Черный	earth земля

Positions 1, 2, 3 and 6 do not have pins.
Позиции 1, 2, 3 и 6 не имеют контактных штырьков.

**1 Note for the aerial connecting*
If your car aerial is an ISO (International Organisation for Standardisation) type, use the supplied adaptor ② to connect it. First connect the car aerial to the supplied adaptor, then connect it to the aerial jack of the master unit.
**2 RCA pin cord (not supplied)*
**3 AUDIO OUT can be switched SUB or REAR. For details, see the Operating Instructions manual.*

**1 Примечание о подсоединении антенны*
Если антенна в Вашем автомобиле относится к типу, утвержденному ISO (Международной организацией по стандартизации), используйте для ее подсоединения переходник ②. Сначала подсоедините автомобильную антенну к прилагаемому переходнику, а затем — к антенному гнезду магнитолы.
**2 Шнур с контактными штырьками RCA (не прилагается)*
**3 Для AUDIO OUT можно выбрать положение SUB или REAR. Для получения дополнительной информации см. прилагаемые инструкции по эксплуатации.*

Connection diagram (3)

Ⓐ To AMP REMOTE IN of an optional power amplifier
This connection is only for amplifiers. Connecting any other system may damage the unit.

Ⓑ To the interface cable of a car telephone

Warning

If you have a power aerial without a relay box, connecting this unit with the supplied power connecting lead ③ may damage the aerial.

Notes on the control and power supply leads
- *The power aerial control lead (blue) supplies +12 V DC when you turn on the tuner.*
- *When your car has built-in FM/AM aerial in the rear/side glass, connect the power aerial control lead (blue) or the accessory power input lead (red) to the power terminal of the existing aerial booster. For details, consult your dealer.*
- *A power aerial without a relay box cannot be used with this unit.*

Memory hold connection
When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition switch is turned off.

Notes on speaker connection
- *Before connecting the speakers, turn the unit off.*
- *Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities to avoid its damage.*
- *Do not connect the speaker terminals to the car chassis, or connect the terminals of the right speakers with those of the left speaker.*
- *Do not connect the earth lead of this unit to the negative (–) terminal of the speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Connect only passive speakers. Connecting active speakers (with built-in amplifiers) to the speaker terminals may damage the unit.*
- *To avoid a malfunction, do not use the built-in speaker leads installed in your car if the unit shares a common negative (–) lead for the right and left speakers.*
- *Do not connect the unit's speaker leads to each other.*

Note on connection
If speaker and amplifier are not connected correctly, "FAILURE" appears in the display. In this case, make sure the speaker and amplifier are connected correctly.

Схема подсоединения (3)

Ⓐ Подключение к входу AMP REMOTE IN дополнительного усилителя мощности
Этот вариант подключения используется только для усилителей. Подключение любой другой системы может привести к повреждению устройства.

Ⓑ К интерфейсному кабелю автомобильного телефона

Предостережение

Если Вы используете антенну с электрическим приводом без релейного блока, подсоединение данной магнитолы посредством прилагаемого шнура питания ③ может привести к повреждению антенны.

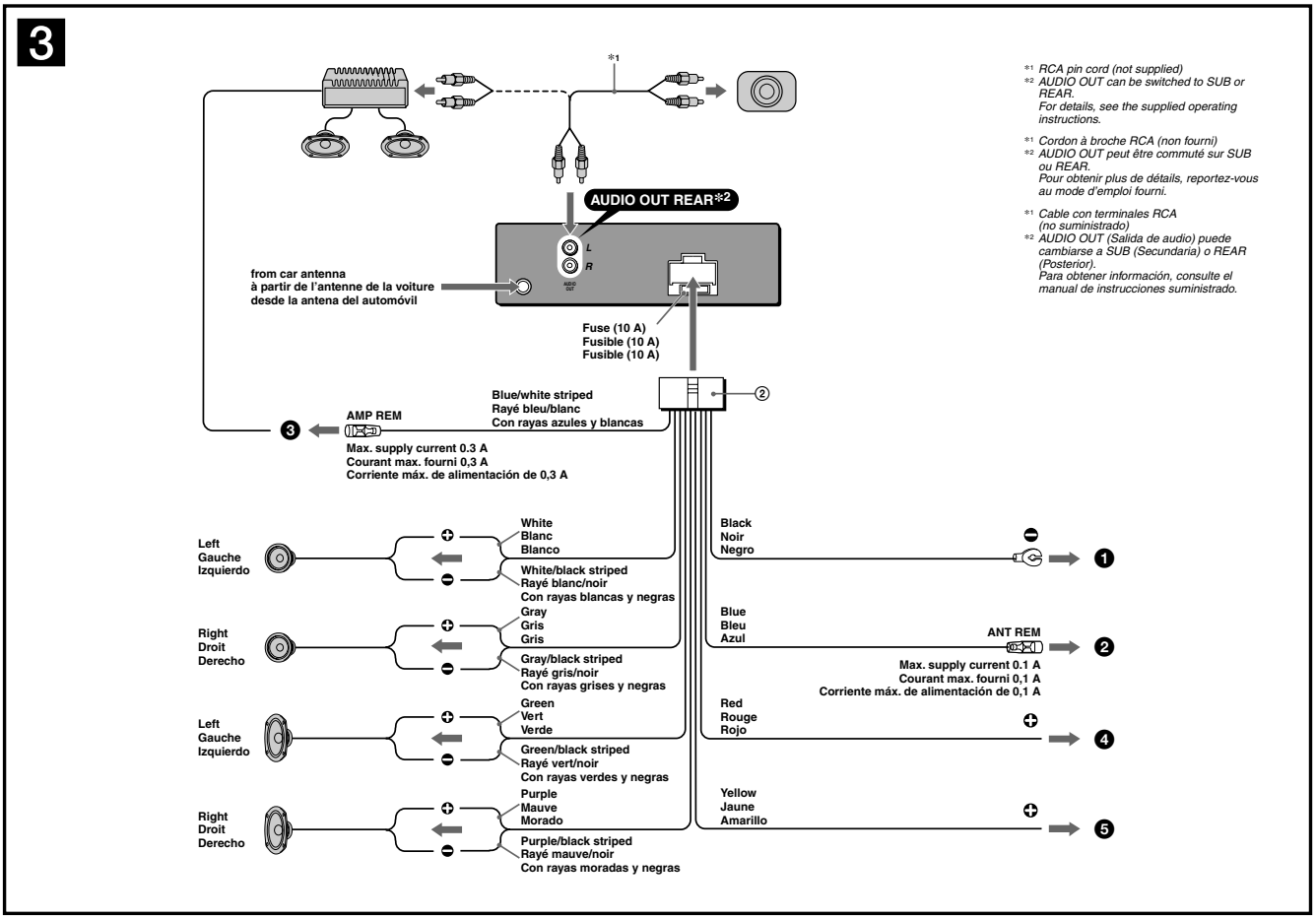
О проводах управления и питания
- *При включении тюнера по проводу питания приемной антенны (синему) подается напряжение +12 В постоянного тока.*
- *Если на заднем/боковом стекле автомобиля установлена встроенная антенна диапазона FM/AM, подсоедините провод питания приемной антенны (синий) или провод питания устройства (красный) к клемме питания существующего усилителя антенны. Чтобы получить дополнительные сведения, обратитесь к своему дилеру.*
- *Антенна с электрическим приводом, не снабженная релейным блоком, с данной магнитолой использоваться не может.*

Подсоединение для поддержки памяти
Когда к магнитоле подсоединен желтый электрический провод, блок памяти будет постоянно получать питание, даже при выключенном зажигании.

О подсоединении громкоговорителей
- *Прежде чем подсоединять громкоговорители, выключите магнитолу.*
- *Используйте громкоговорители с полным сопротивлением 4 - 8 Ом, обладающие способностью принимать достаточно мощный сигнал. В противном случае они могут быть повреждены.*
- *Не подсоединяйте контактные гнезда громкоговорителей к шасси автомобиля и не соединяйте гнезда правого громкоговорителя с гнездами левого.*
- *Не подключайте провод заземления этого аппарата к отрицательному (–) контакту громкоговорителя.*
- *Не пытайтесь подсоединить громкоговорители параллельно.*
- *Не подсоединяйте к гнездам для громкоговорителей на магнитоле какие бы то ни было активные громкоговорители (со встроенными усилителями), поскольку это может привести к повреждению последних. Убедитесь в том, что подсоединяемые громкоговорители относятся к пассивному типу.*
- *Во избежание неправильной работы устройства не используйте встроенные в автомобиль провода громкоговорителей, если устройство использует общий отрицательный провод (–) для правого и левого громкоговорителей.*
- *Не замыкайте провода громкоговорителей устройства.*

Примечание относительно подсоединения
Если громкоговоритель и усилитель подсоединены неправильно, на дисплее отобразится надпись "FAILURE". В этом случае проверьте правильность подсоединения громкоговорителя и усилителя.

Connections (CDX-SW330)



*1 *RCA pin cord (not supplied)*
*2 *AUDIO OUT can be switched to SUB or REAR.*
For details, see the supplied operating instructions.

*1 *Cordon à broche RCA (non fourni)*
*2 *AUDIO OUT peut être commuté sur SUB ou REAR.*
Pour obtenir plus de détails, reportez-vous au mode d'emploi fourni.

*1 *Cable con terminales RCA (no suministrado)*
*2 *AUDIO OUT (Salida de audio) puede cambiarse a SUB (Secundaria) o REAR (Posterior).*
Para obtener información, consulte el manual de instrucciones suministrado.

Connection diagram (3)

❶ **To a metal surface of the car**
First connect the black ground lead, then connect the yellow and red power input leads.

❷ **To the power antenna control lead or power supply lead of antenna booster amplifier**
Notes
- *It is not necessary to connect this lead if there is no power antenna or antenna booster, or with a manually-operated telescopic antenna.*
- *When your car has a built-in FM/AM antenna in the rear/side glass, see "Notes on the control and power supply leads."*

❸ **To AMP REMOTE IN of an optional power amplifier**
This connection is only for amplifiers. Connecting any other system may damage the unit.

❹ **To the +12 V power terminal which is energized in the accessory position of the ignition key switch**
Notes
- *If there is no accessory position, connect to the +12 V power (battery) terminal which is energized at all times. Be sure to connect the black ground lead to a metal surface of the car first.*
- *When your car has a built-in FM/AM antenna in the rear/side glass, see "Notes on the control and power supply leads."*

❺ **To the +12 V power terminal which is energized at all times**
Be sure to connect the black ground lead to a metal surface of the car first.

Notes on the control and power supply leads
- *The power antenna control lead (blue) supplies +12 V DC when you turn on the tuner.*
- *When your car has built-in FM/AM antenna in the rear/side glass, connect the power antenna control lead (blue) or the accessory power input lead (red) to the power terminal of the existing antenna booster. For details, consult your dealer.*
- *A power antenna without a relay box cannot be used with this unit.*

Memory hold connection
When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition switch is turned off.

Notes on speaker connection
- *Before connecting the speakers, turn the unit off.*
- *Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities to avoid its damage.*
- *Do not connect the speaker terminals to the car chassis, or connect the terminals of the right speakers with those of the left speaker.*
- *Do not connect the ground lead of this unit to the negative (–) terminal of the speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Connect only passive speakers. Connecting active speakers (with built-in amplifiers) to the speaker terminals may damage the unit.*
- *To avoid a malfunction, do not use the built-in speaker leads installed in your car if the unit shares a common negative (–) lead for the right and left speakers.*
- *Do not connect the unit's speaker leads to each other.*

Note on connection
If speaker and amplifier are not connected correctly, "FAILURE" appears in the display. In this case, make sure the speaker and amplifier are connected correctly.

Schéma de raccordement (3)

❶ **À un point métallique de la voiture**
Branchez d'abord le câble de mise à la masse noir et, ensuite, les câbles d'entrée d'alimentation jaune et rouge.

❷ **Vers le câble de commande d'antenne électrique ou le câble d'alimentation de l'amplificateur d'antenne**
Remarques
- *Il n'est pas nécessaire de raccorder ce câble s'il n'y a pas d'antenne électrique ni d'amplificateur d'antenne, ou avec une antenne télescopique manuelle.*
- *Si votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, voir « Remarques sur les câbles de commande et d'alimentation ».*

❸ **Au niveau de AMP REMOTE IN de l'amplificateur de puissance en option**
Ce raccordement s'applique uniquement aux amplificateurs. Le branchement de tout autre système risque d'endommager l'appareil.

❹ **À la borne +12 V qui est alimentée quand la clé de contact est sur la position accessoires**
Remarques
- *S'il n'y a pas de position accessoires, raccordez la borne d'alimentation (batterie) +12 V qui est alimentée en permanence. Raccordez d'abord le câble de mise à la masse noir à un point métallique du véhicule.*
- *Si votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, voir « Remarques sur les câbles de commande et d'alimentation ».*

❺ **À la borne +12 V qui est alimentée en permanence**
Raccordez d'abord le câble de mise à la masse noir à un point métallique du véhicule.

Remarques sur les câbles de commande et d'alimentation
- *Le câble de commande d'antenne électrique (bleu) fournit une alimentation de + 12 V CC lorsque vous mettez la radio sous tension.*
- *Lorsque votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, raccordez le câble de commande d'antenne (bleu) ou l'entrée d'alimentation des accessoires (rouge) à la borne d'alimentation de l'amplificateur d'antenne existant. Pour plus de détails, consultez votre détaillant.*
- *Une antenne électrique sans boîtier de relais ne peut pas être utilisée avec cet appareil.*

Raccordement pour la conservation de la mémoire
Lorsque le câble d'entrée d'alimentation jaune est raccordé, le circuit de la mémoire est alimenté en permanence même si la clé de contact est sur la position d'arrêt.

Remarques sur le raccordement des haut-parleurs
- *Avant de raccorder les haut-parleurs, mettez l'appareil hors tension.*
- *Utilisez des haut-parleurs ayant une impédance de 4 à 8 ohms avec une capacité électrique adéquate pour éviter de les endommager.*
- *Ne raccordez pas les bornes du système de haut-parleurs au châssis de la voiture et ne raccordez pas les bornes des haut-parleurs droit à celles du haut-parleur gauche.*
- *Ne raccordez pas le câble de mise à la masse de cet appareil à la borne négative (–) du haut-parleur.*
- *N'essayez pas de raccorder les haut-parleurs en parallèle.*
- *Raccordez uniquement des haut-parleurs passifs. Le raccordement de haut-parleurs actifs (avec amplificateurs intégrés) aux bornes des haut-parleurs peut endommager l'appareil.*
- *Pour éviter tout dysfonctionnement, n'utilisez pas les câbles des haut-parleurs intégrés installés dans votre voiture si l'appareil partage un câble négatif commun (–) pour les haut-parleurs droit et gauche.*
- *Ne raccordez pas entre eux les cordons des haut-parleurs de l'appareil.*

Remarque sur le raccordement
Si les haut-parleurs et l'amplificateur ne sont pas raccordés correctement, le message « FAILURE » s'affiche. Dans ce cas, assurez-vous que les haut-parleurs et l'amplificateur sont bien raccordés.

Diagrama de conexión (3)

❶ **A una superficie metálica del automóvil**
Conecte primero el cable de conexión a masa negro, y después los cables con rayas naranjas y blancas, amarillo, y rojo de entrada de alimentación.

❷ **Al cable de control de la antena motorizada o al cable de fuente de alimentación del amplificador de señal de la antena**
Notas
- *Si no se dispone de antena motorizada ni de amplificador de antena, o se utiliza una antena telescópica accionada manualmente, no será necesario conectar este cable.*
- *Si el automóvil incorpora una antena de FM/AM en el cristal trasero o lateral, consulte "Notas sobre los cables de control y de fuente de alimentación".*

❸ **A AMP REMOTE IN de un amplificador de potencia opcional**
Esta conexión es sólo para amplificadores. La conexión de cualquier otro sistema puede dañar la unidad.

❹ **Al terminal de alimentación de +12 V que recibe energía en la posición de accesorio del interruptor de la llave de encendido**
Notas
- *Si no hay posición de accesorio, conéctelo al terminal de alimentación (batería) de +12 V que recibe energía sin interrupción.*
Asegúrese de conectar primero el cable de conexión a masa negro a una superficie metálica del automóvil.
- *Si el automóvil incorpora una antena de FM/AM en el cristal trasero o lateral, consulte "Notas sobre los cables de control y de fuente de alimentación".*

❺ **Al terminal de alimentación de +12 V que recibe energía sin interrupción**
Asegúrese de conectar primero el cable de conexión a masa negro a una superficie metálica del automóvil.

Notas sobre los cables de control y de fuente de alimentación
- *El cable de control de la antena motorizada (azul) suministrará cc de + 12 V cuando conecte la alimentación del sintonizador.*
- *Si el automóvil dispone de una antena de FM/AM incorporada en el cristal trasero o lateral, conecte el cable de control de antena motorizada (azul) o el cable de entrada de alimentación auxiliar (rojo) al terminal de alimentación del amplificador de antena existente. Para obtener más información, consulte a su distribuidor.*
- *Con esta unidad no es posible utilizar una antena motorizada sin caja de relé.*

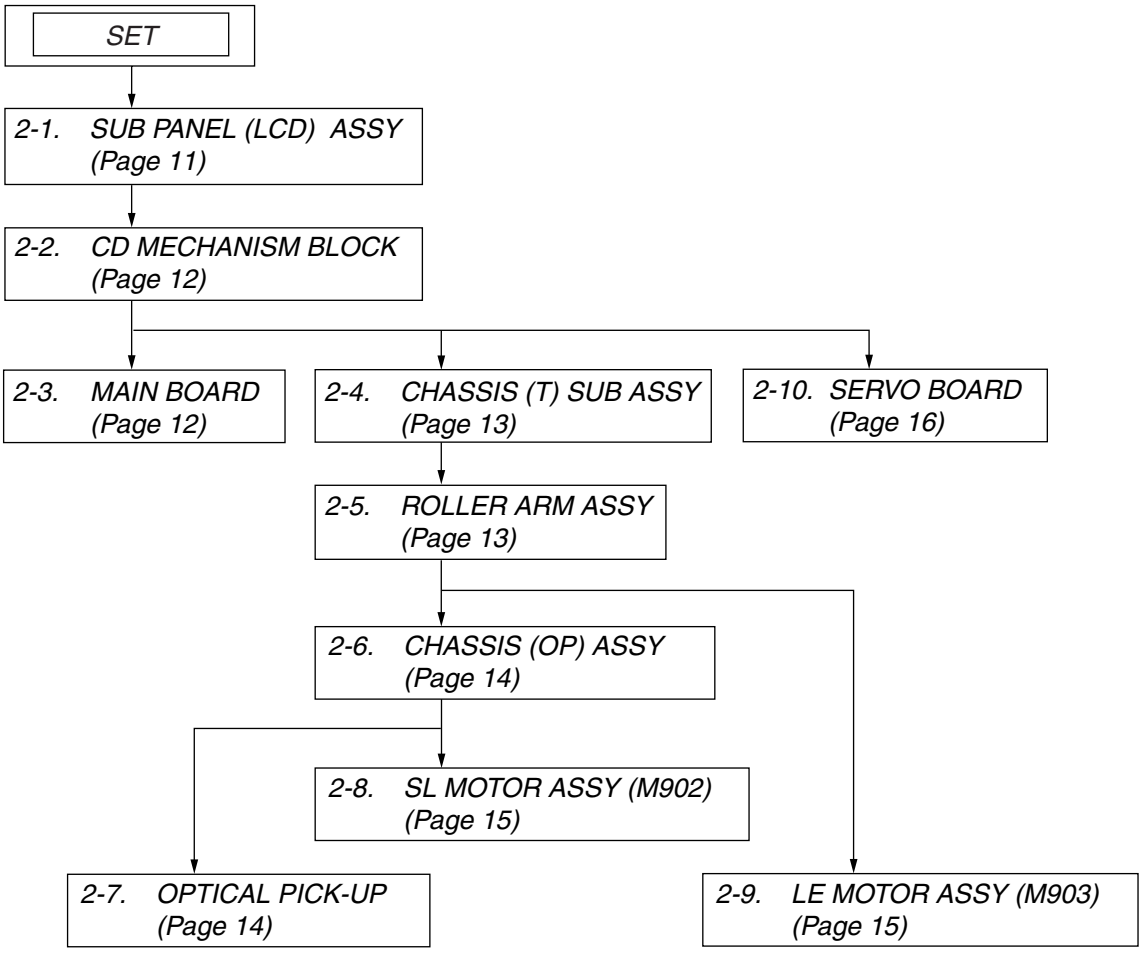
Conexión para protección de la memoria
Si conecta el cable de entrada de alimentación amarillo, el circuito de la memoria recibirá siempre alimentación, aunque apague la llave de encendido.

Notas sobre la conexión de los altavoces
- *Antes de conectar los altavoces, desconecte la alimentación de la unidad.*
- *Utilice altavoces con una impedancia de 4 a 8 Ω con la capacidad de potencia adecuada para evitar que se dañen.*
- *No conecte los terminales de altavoz al chasis del automóvil, ni conecte los terminales del altavoz derecho con los del izquierdo.*
- *No conecte el cable de conexión a masa de esta unidad al terminal negativo (–) del altavoz.*
- *No intente conectar los altavoces en paralelo.*
- *Conecte solamente altavoces pasivos. Si conecta altavoces activos (con amplificadores incorporados) a los terminales de altavoz, puede dañar la unidad.*
- *Para evitar fallos de funcionamiento, no utilice los cables de altavoz incorporados instalados en el automóvil si su unidad comparte un cable negativo común (–) para los altavoces derecho e izquierdo.*
- *No conecte los cables de altavoz de la unidad entre sí.*

Nota sobre la conexión
Si el altavoz y el amplificador no están conectados correctamente, aparecerá "FAILURE" en la pantalla. Si es así, compruebe la conexión de ambos dispositivos.

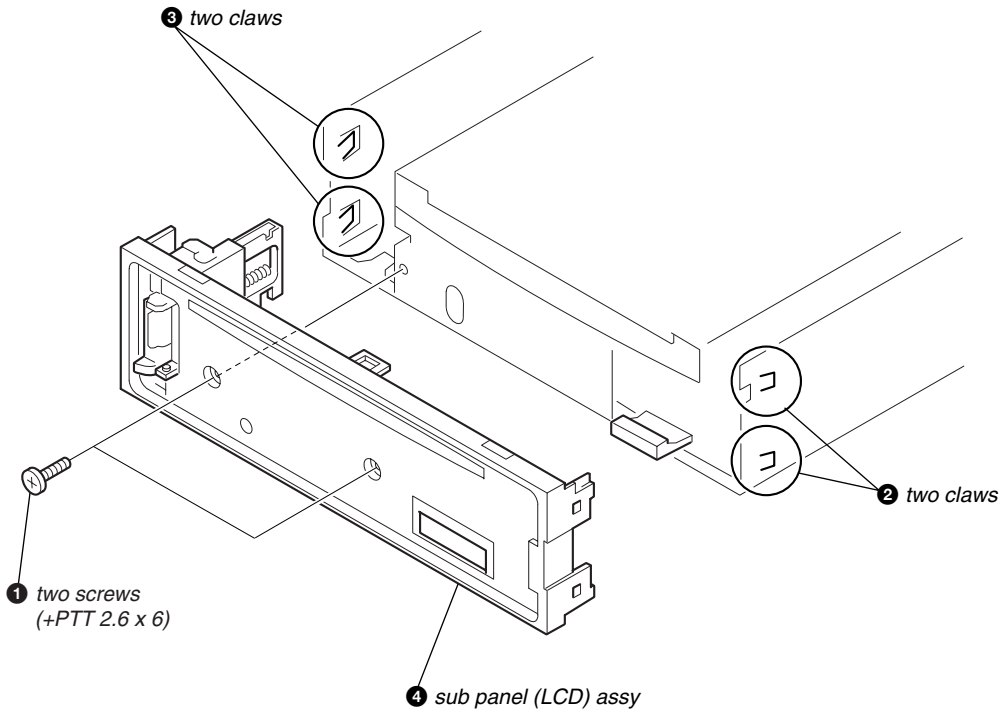
SECTION 2
DISASSEMBLY

Note : This set can be disassemble according to the following sequence.

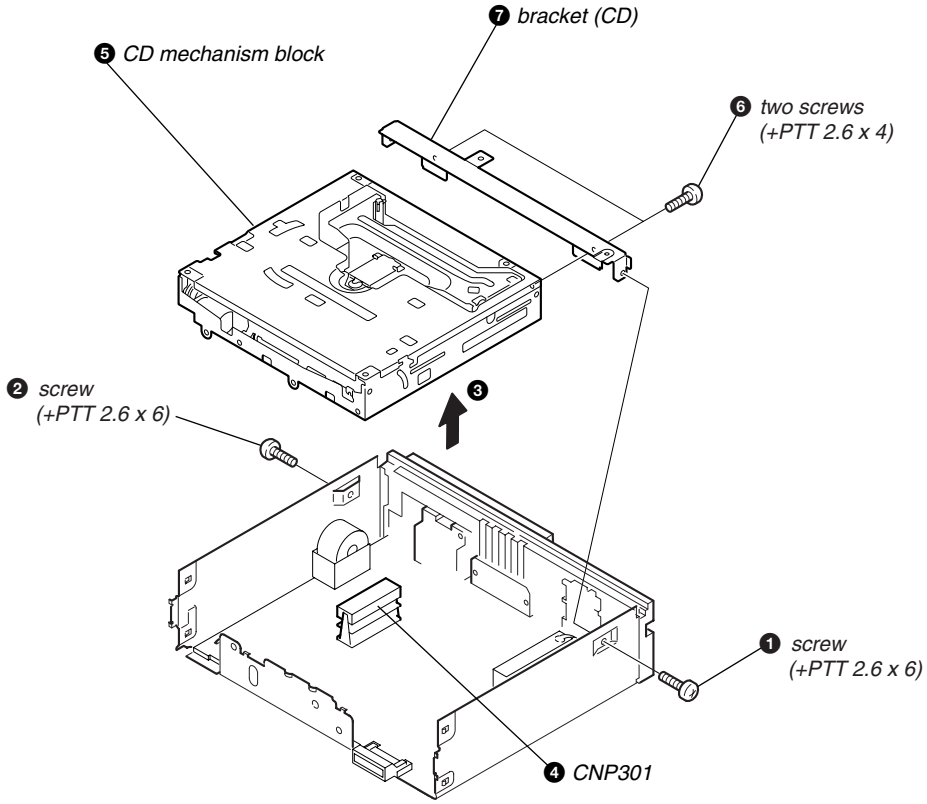

SET
2-1. SUB PANEL (LCD) ASSY (Page 11)
2-2. CD MECHANISM BLOCK (Page 12)
2-3. MAIN BOARD (Page 12)
2-4. CHASSIS (T) SUB ASSY (Page 13)
2-10. SERVO BOARD (Page 16)
2-5. ROLLER ARM ASSY (Page 13)
2-6. CHASSIS (OP) ASSY (Page 14)
2-8. SL MOTOR ASSY (M902) (Page 15)
2-7. OPTICAL PICK-UP (Page 14)
2-9. LE MOTOR ASSY (M903) (Page 15)

Note : Follow the disassembly procedure in the numerical order given.

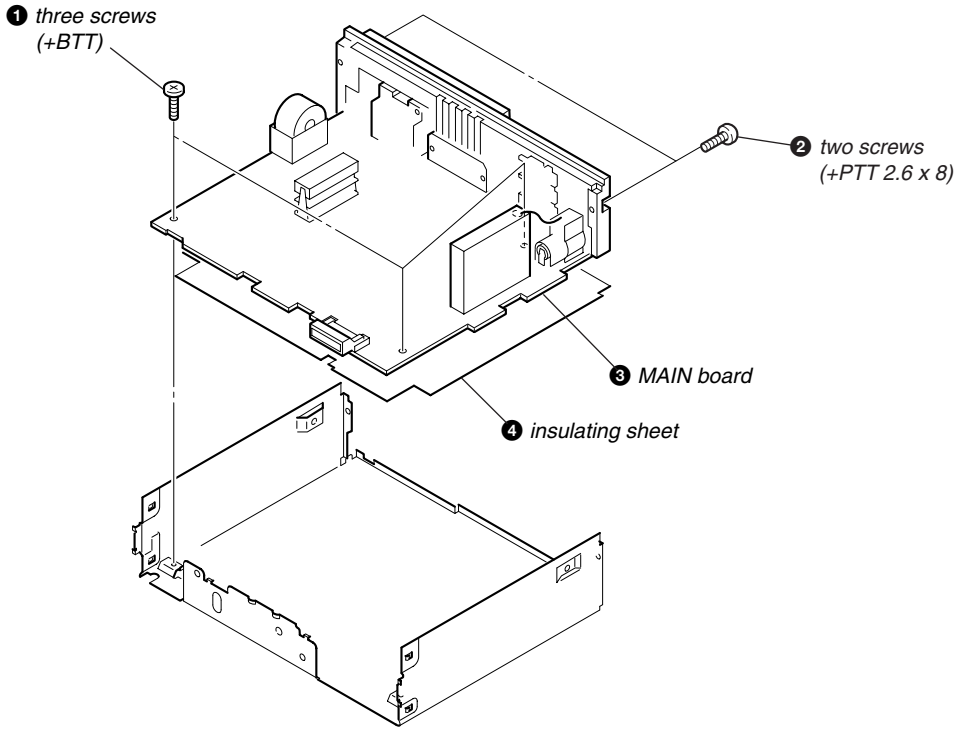
2-1. SUB PANEL (LCD) ASSY



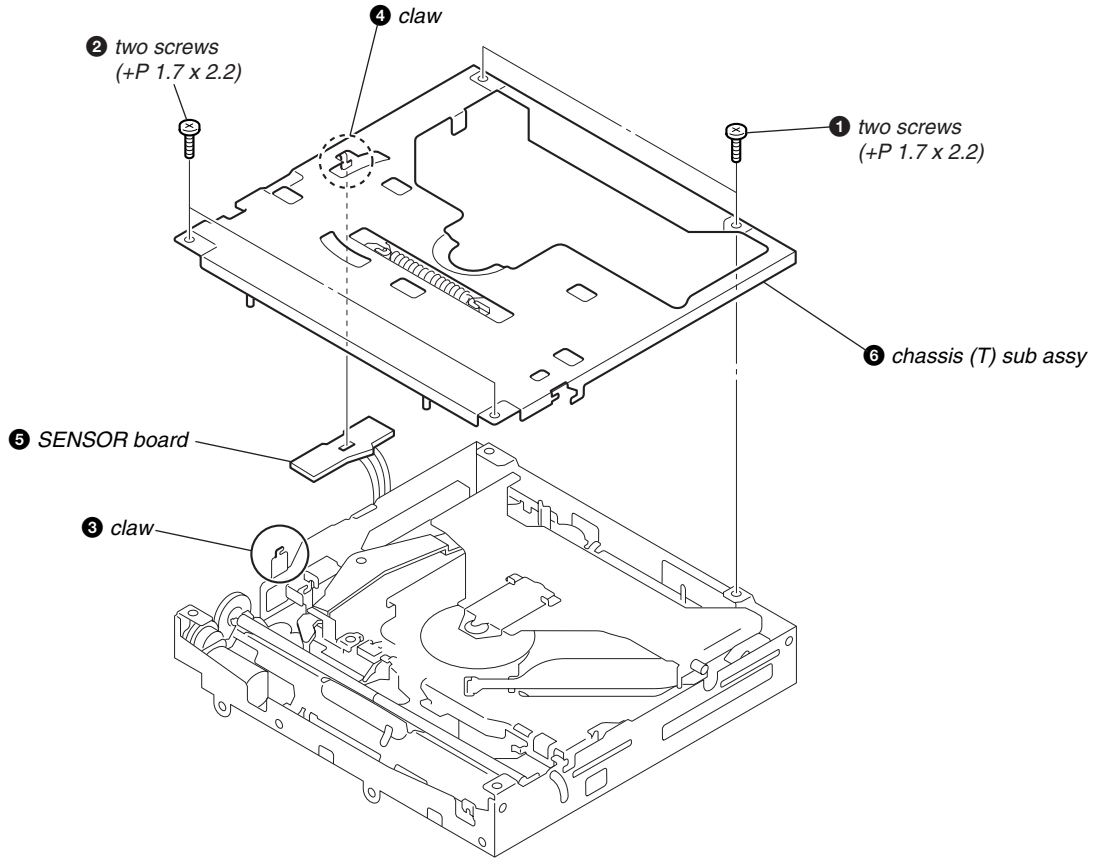
2-2. CD MECHANISM BLOCK



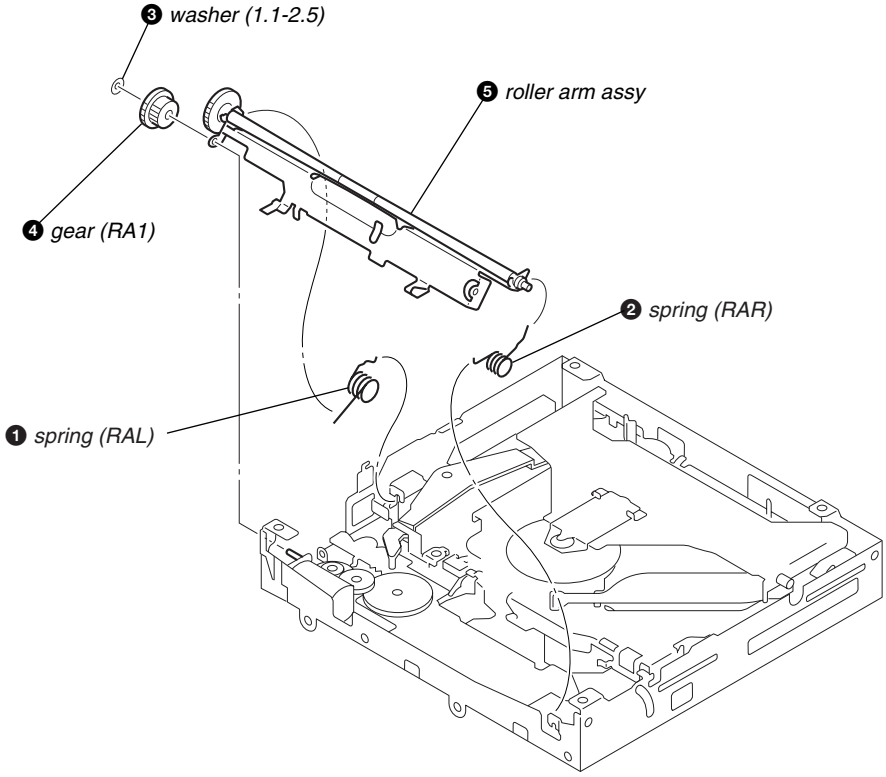
2-3. MAIN BOARD



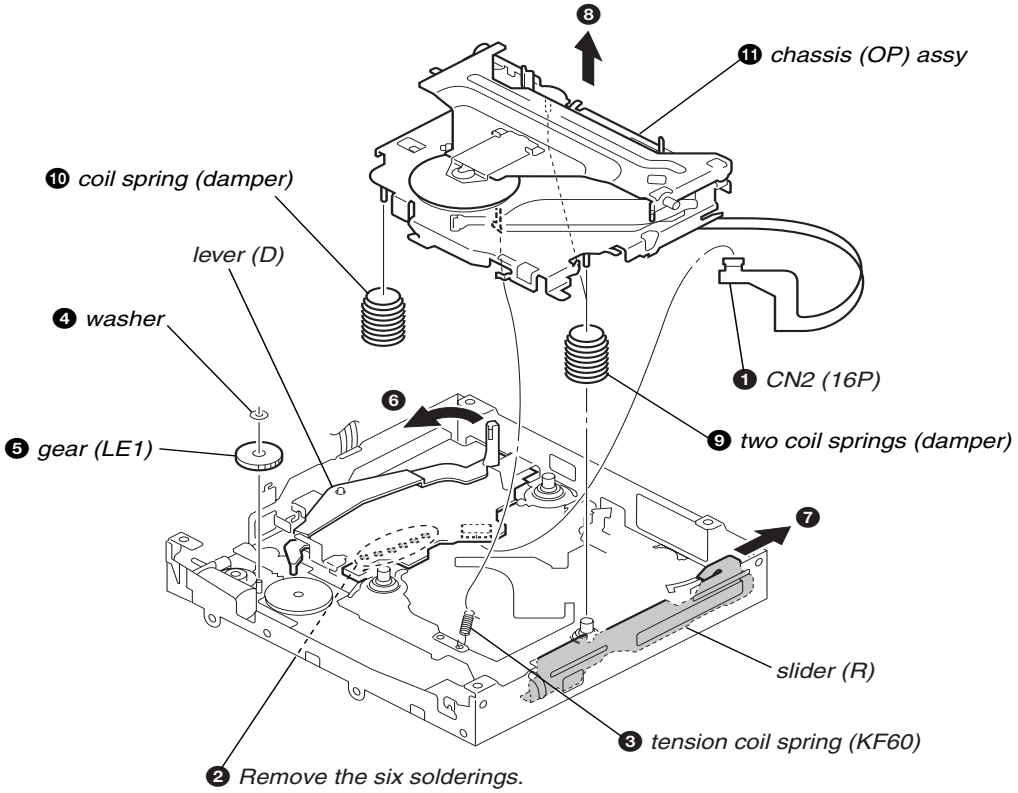
2-4. CHASSIS (T) SUB ASSY



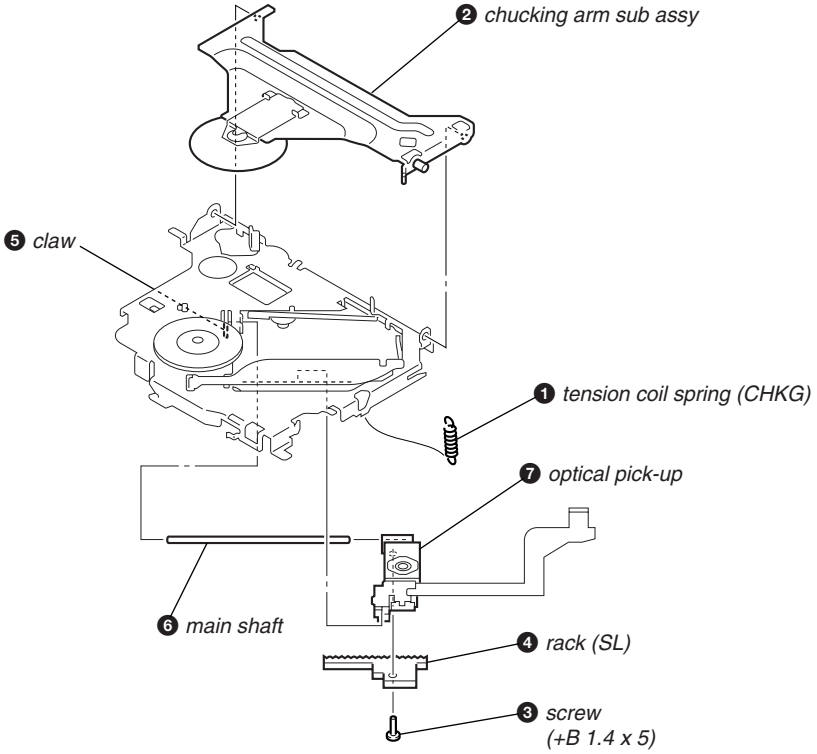
2-5. ROLLER ARM ASSY



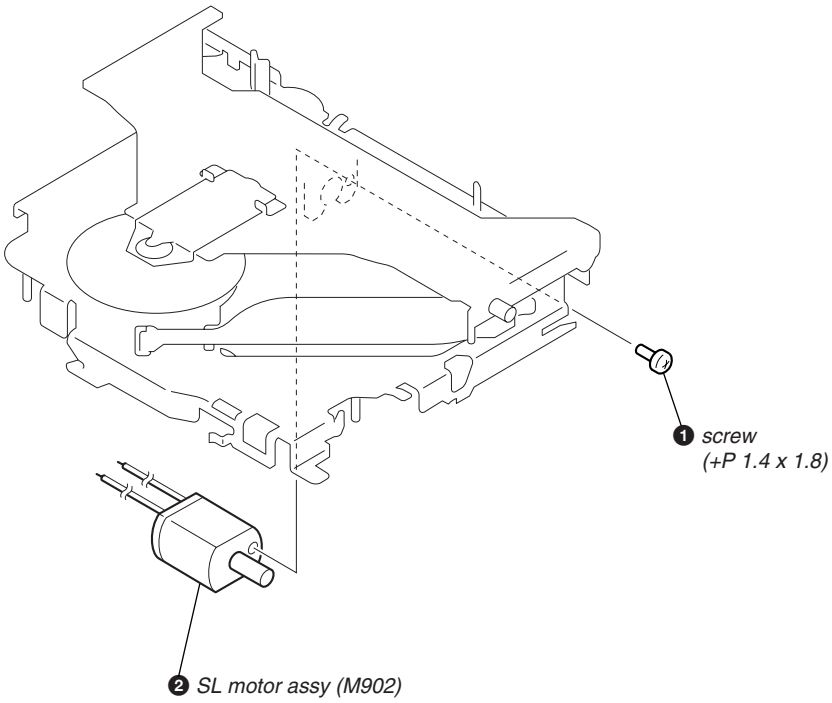
2-6. CHASSIS (OP) ASSY



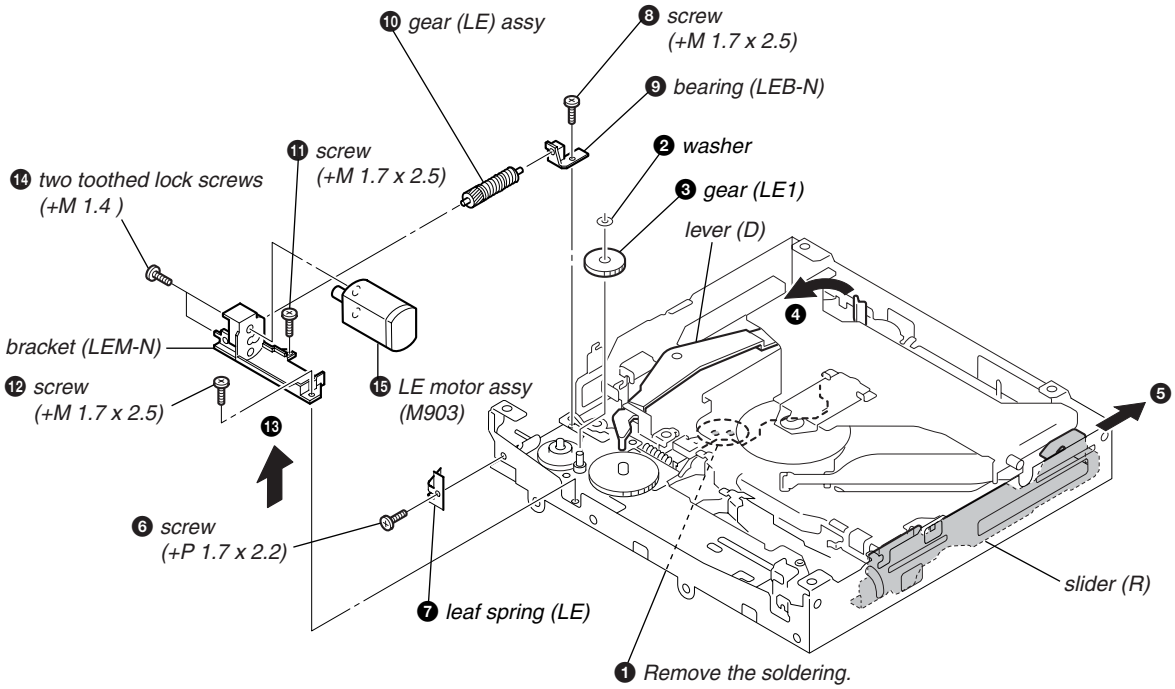
2-7. OPTICAL PICK-UP



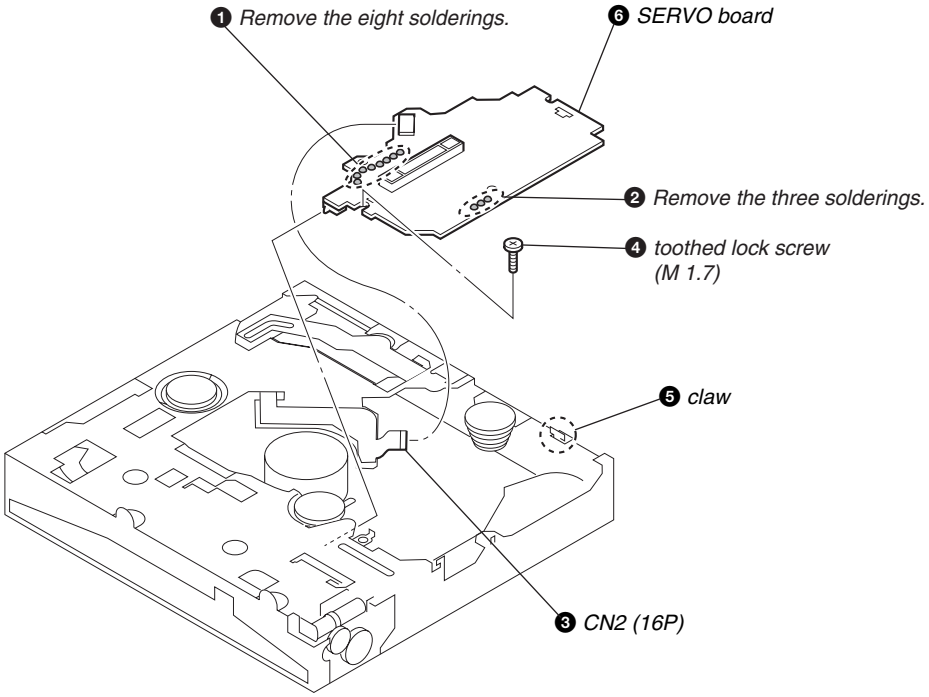
2-8. SL MOTOR ASSY (M902)



2-9. LE MOTOR ASSY (M903)

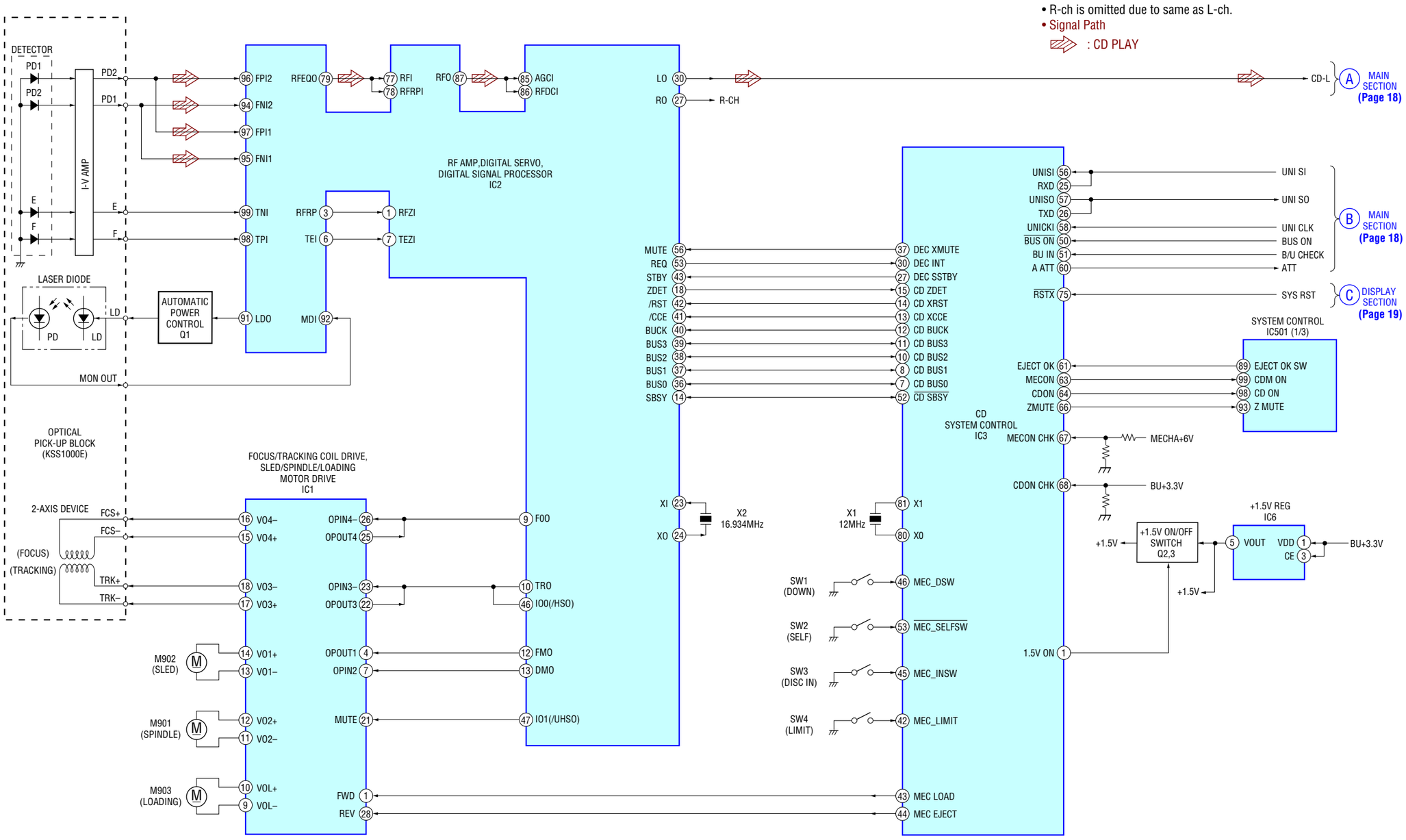


2-10. SERVO BOARD

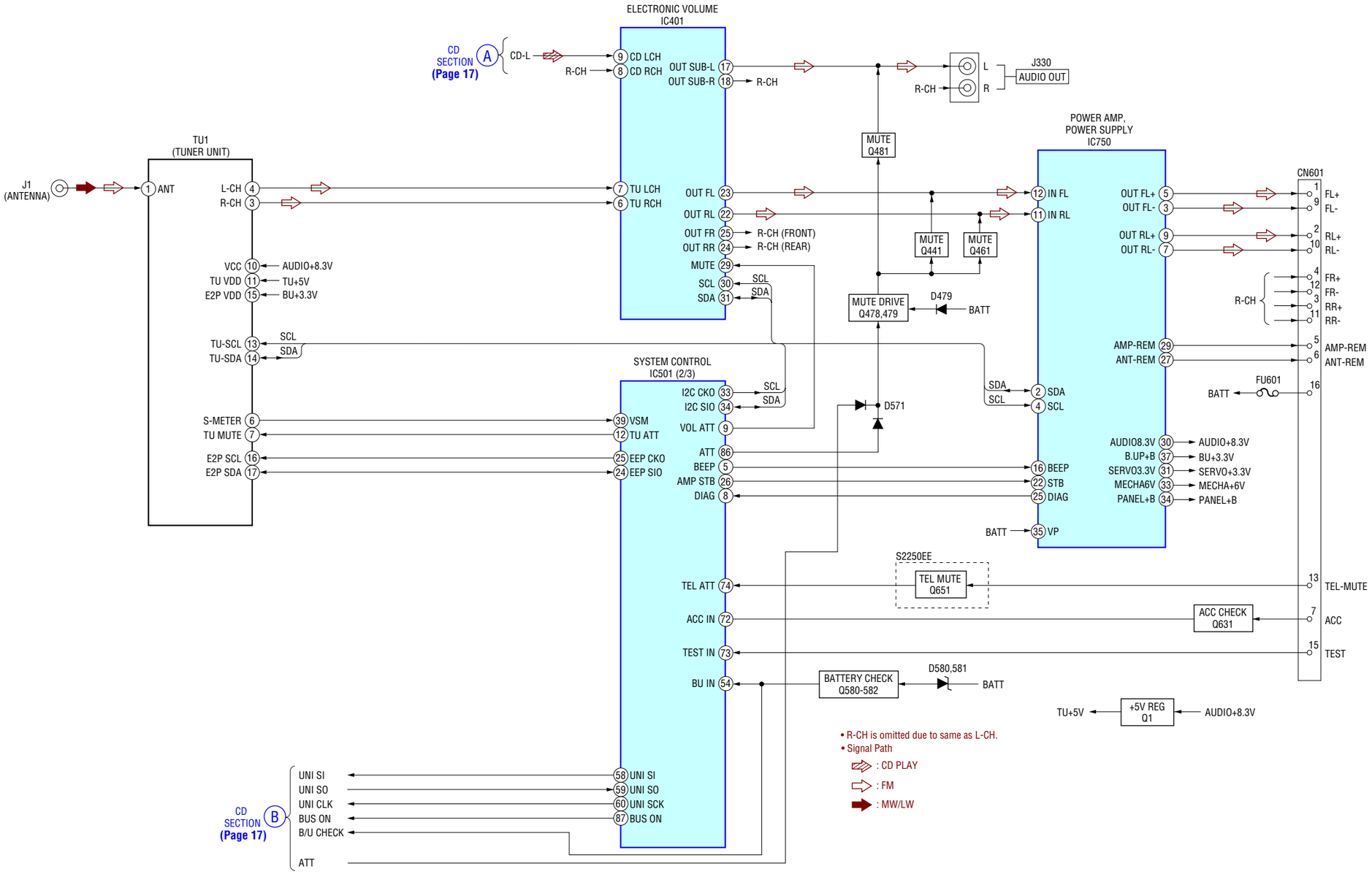


SECTION 3
DIAGRAMS

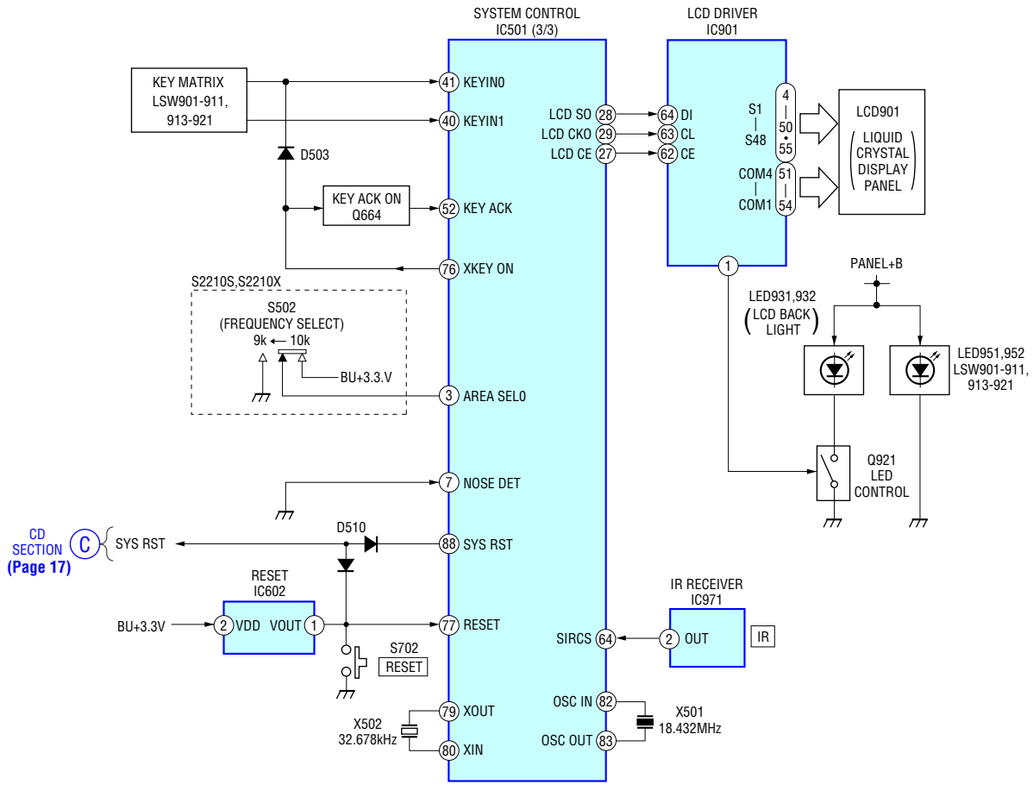
3-1. BLOCK DIAGRAM – CD SECTION –



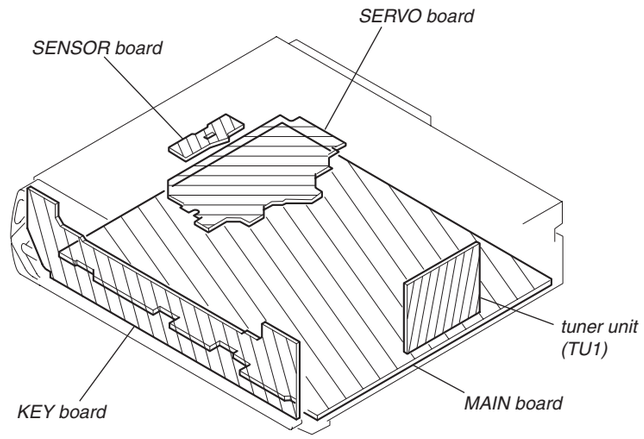
3-2. BLOCK DIAGRAM – MAIN SECTION –



3-3. BLOCK DIAGRAM – DISPLAY SECTION –



• Circuit Boards Location



• NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

For schematic diagrams.

Note:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

- ▬▬ : B+ Line.
- ▬ ▬ : B– Line.
- ▭ : adjustment for repair .
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- CD mechanism section (1/2), (2/2)
  no mark : CD PLAY
- Main (1/4), (2/4), (3/4), (4/4) and Display sections
  no mark : FM
  ( ) : AM
  < > : CD PLAY
  * : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇛ : CD PLAY
  ⇨ : FM
  ➡ : AM

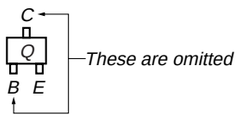
For printed wiring boards.

Note:

- o——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ○ : Through hole.
- ▬ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Side B)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A)	Parts on the parts face side seen from the parts face are indicated.



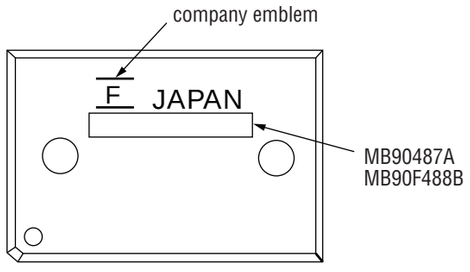
These are omitted

These are omitted

These are omitted

☆ **NOTE FOR REPLACEMENT OF THE IC501**

IC501 on the main board has two types of IC models: MB90487 and MB90F488B.
The service part is the model MB90487 only.
Check the model number printed on the IC when replacing IC501.
If MB90F488 is printed on the IC, mount the capacitor C551 additionally.



IC501	C351
MB90487A	0.001µF
MB90F488B	NO MOUNT

• Waveforms

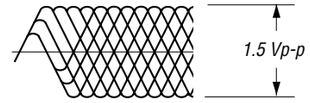
— SERVO Board — (CD PLAY)

① IC2 ④ (FEI)

Approx. 100 mVp-p

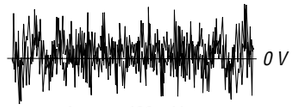
50 mV/DIV, 5 msec/DIV

⑤ IC2 ㊹ (FNI2), ㊺ (FNI1)



0.5 V/DIV, 0.5 µsec/DIV

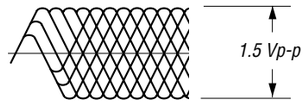
② IC2 ⑥ (TEI)



Approx. 400 mVp-p

200 mV/DIV, 5 msec/DIV

⑥ IC2 ㊻ (FPI2), ㊼ (FPI1)



0.5 V/DIV, 0.5 µsec/DIV

③ IC2 ㉓ (XI)

16.9344 MHz

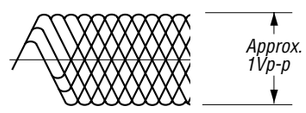
0.2 V/DIV, 0.2 µsec/DIV

⑦ IC3 ㉛ (X1)

12 MHz

0.5 V/DIV, 0.2 µsec/DIV

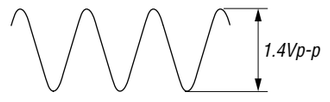
④ IC2 ㊼ (RFI)



0.5 V/DIV, 0.5 µsec/DIV

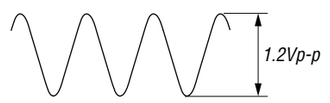
— MAIN Board —

① IC501 ㊽ (XIN)



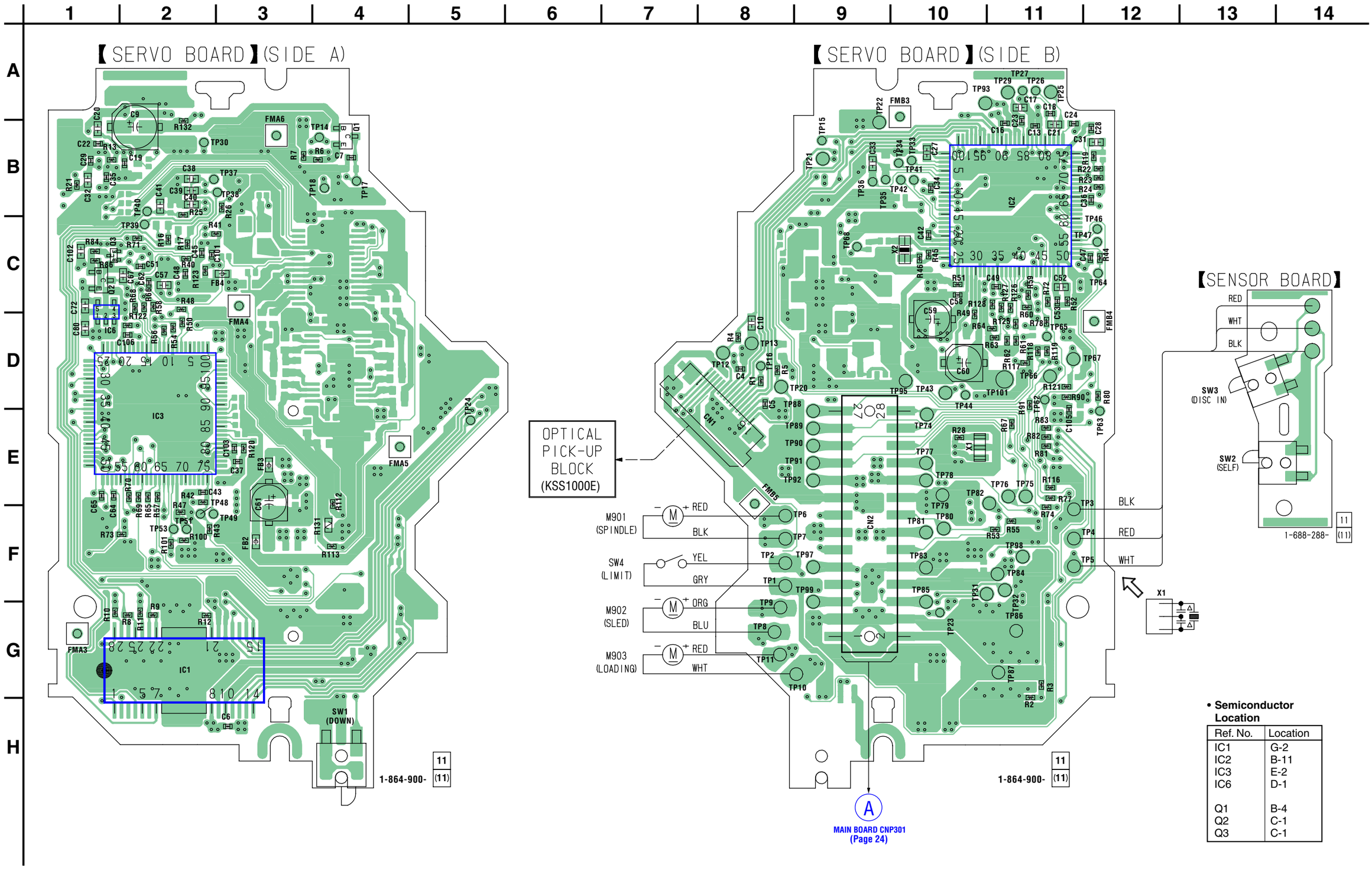
32.678kHz

② IC501 ㊸ (OSCOUT)



18.432MHz

3-4. PRINTED WIRING BOARDS – SERVO BOARD – • See page 19 for Circuit Boards Location. : Uses unleaded solder.

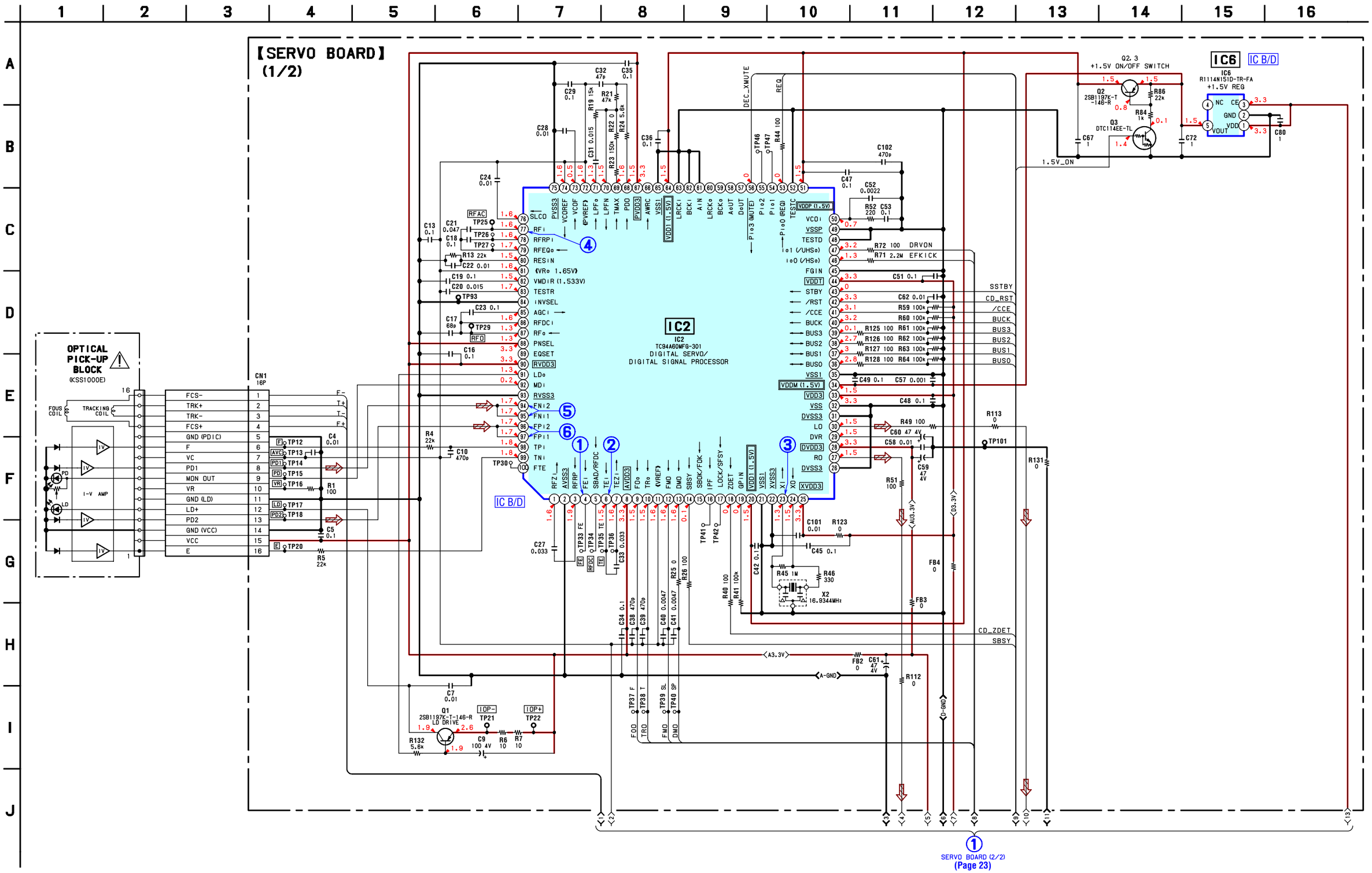


• **Semiconductor Location**

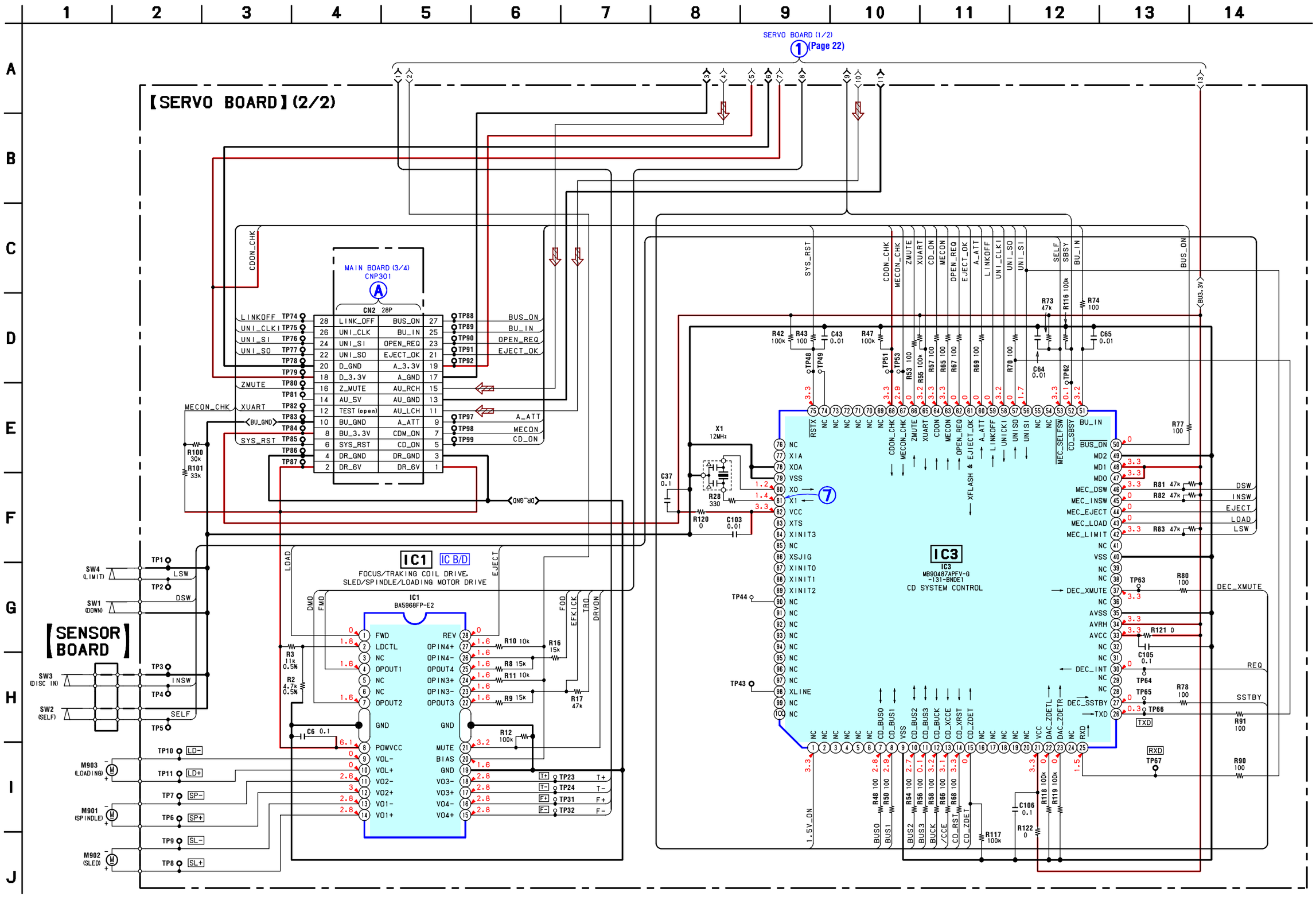
Ref. No.	Location
IC1	G-2
IC2	B-11
IC3	E-2
IC6	D-1
Q1	B-4
Q2	C-1
Q3	C-1

3-5. SCHEMATIC DIAGRAM – SERVO BOARD (1/2) –

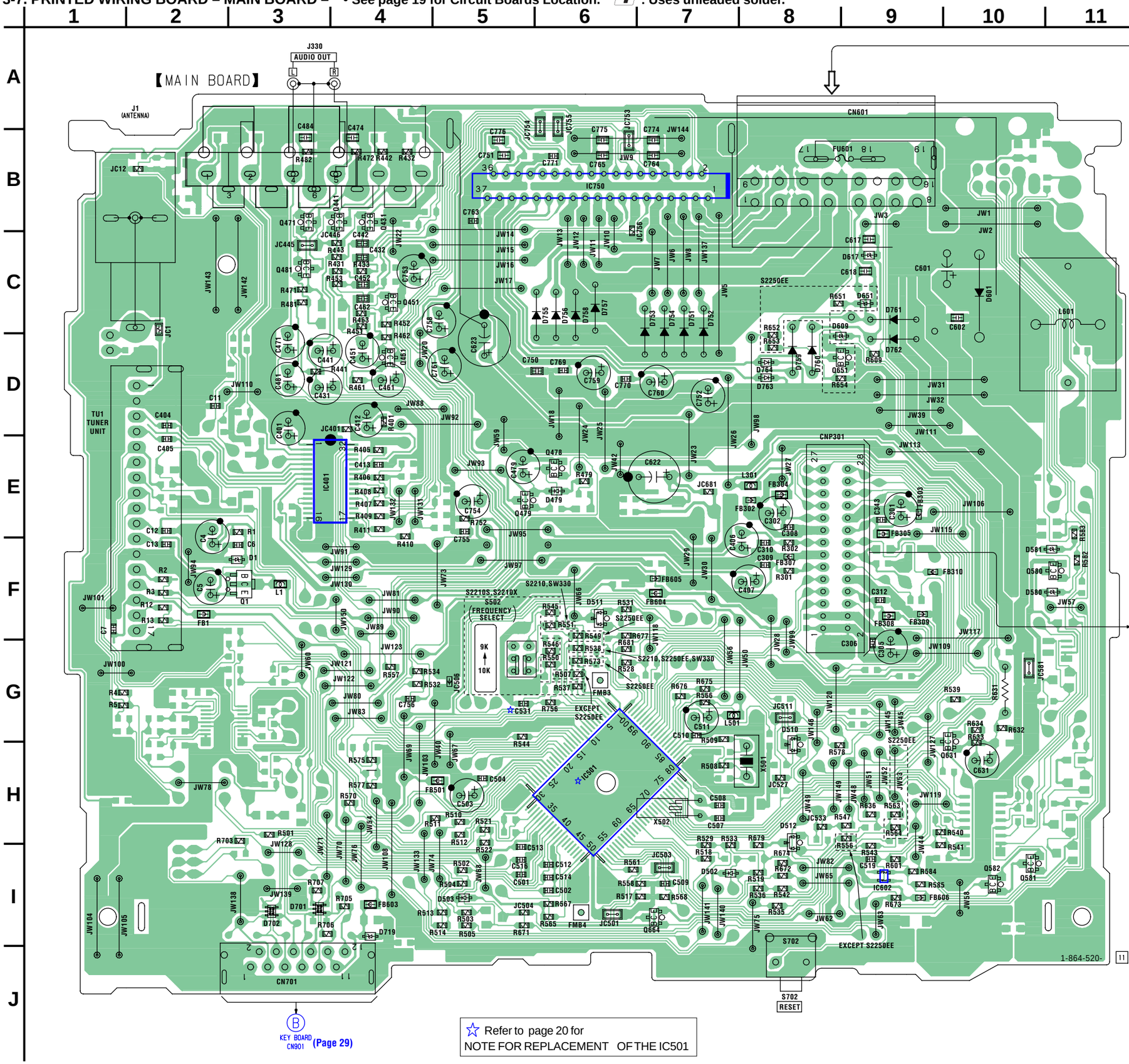
• See page 32 for IC Block Diagram. • See page 20 for Waveforms.



3-6. SCHEMATIC DIAGRAM – SERVO BOARD (2/2) – • See page 31 for IC Block Diagram. • See page 20 for Waveforms. • See page 35 for IC Pin Descriptions.



3-7. PRINTED WIRING BOARD – MAIN BOARD – • See page 19 for Circuit Boards Location. : Uses unleaded solder.

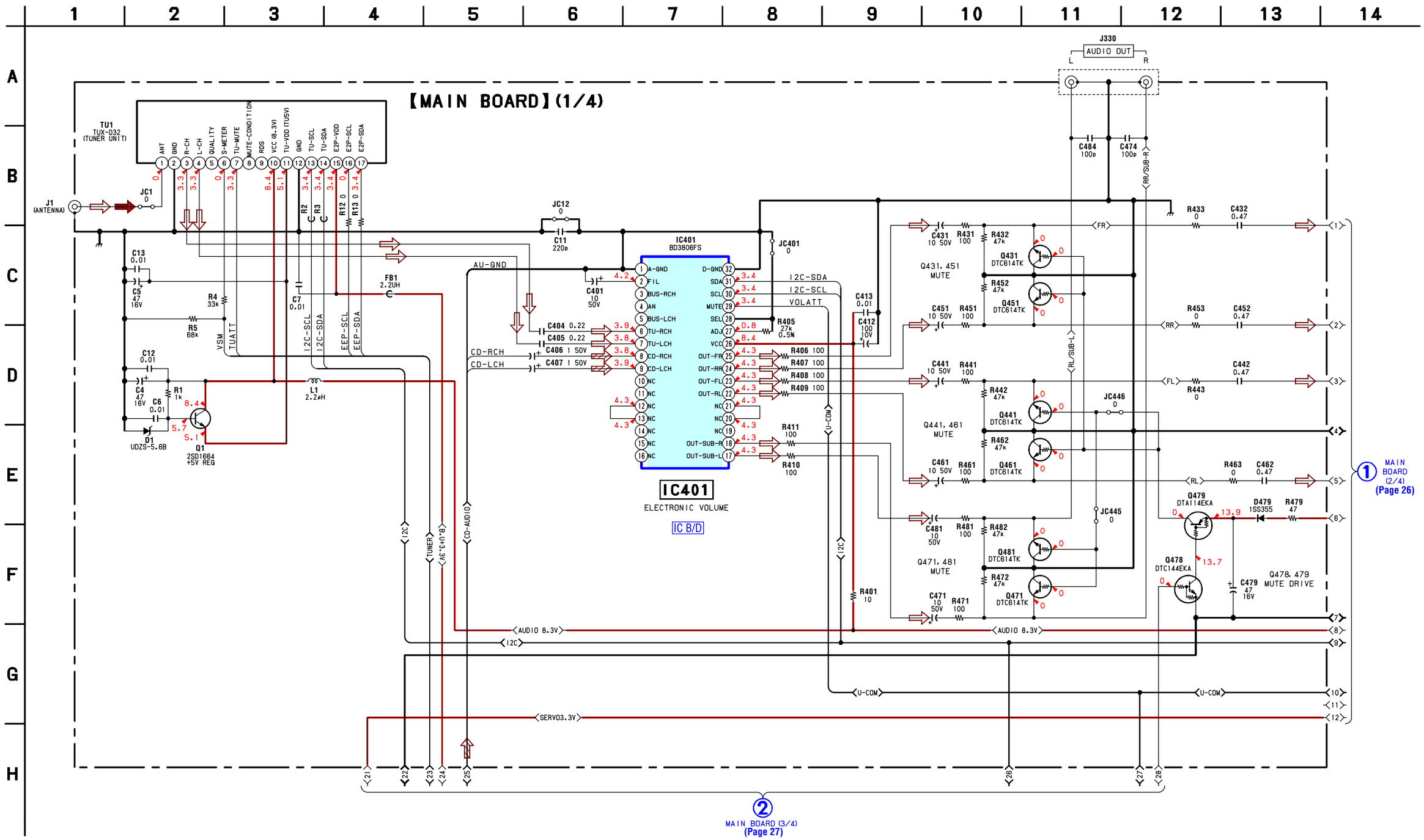


☆ Refer to page 20 for NOTE FOR REPLACEMENT OF THE IC501

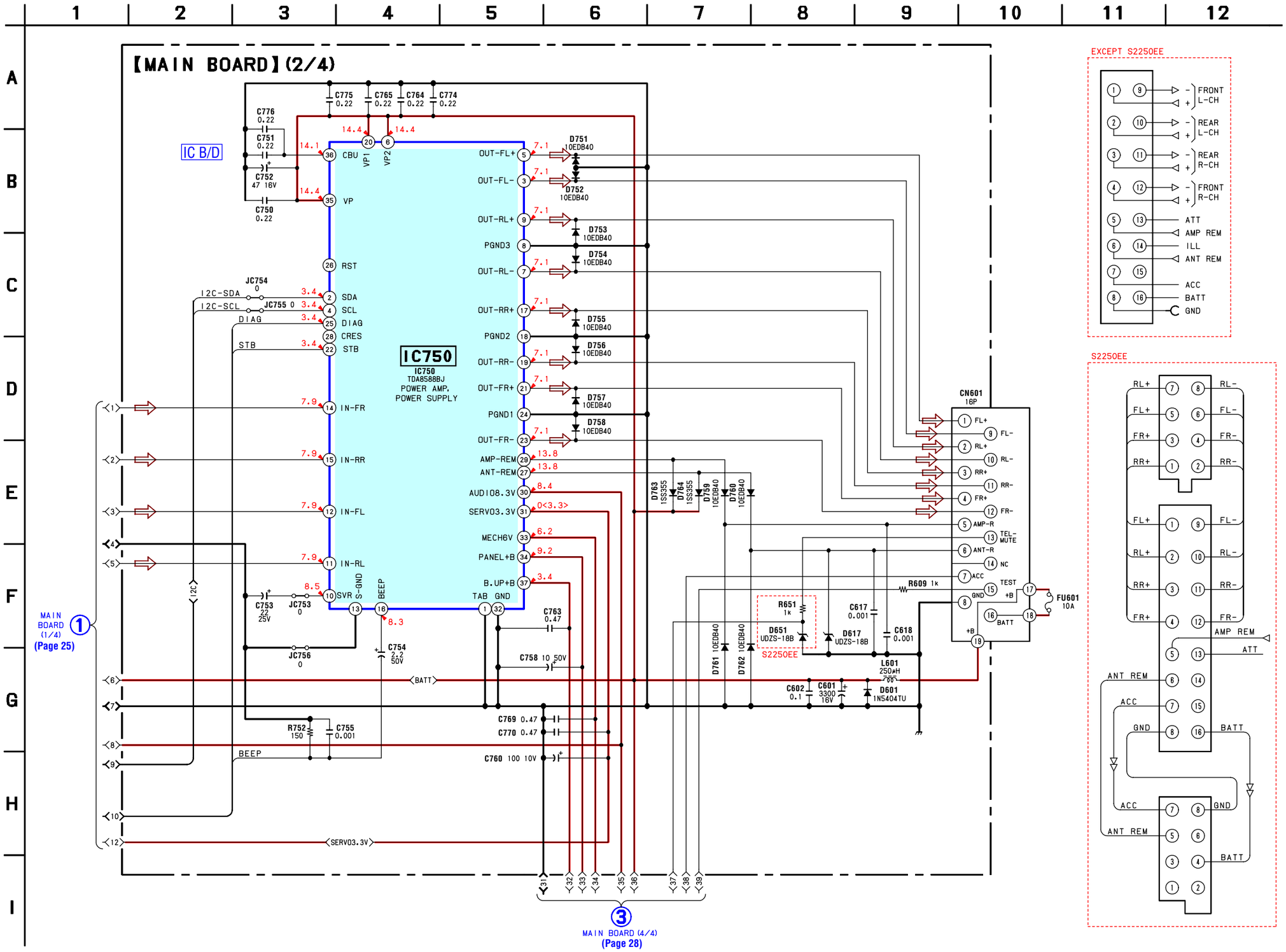
• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D1	F-3	D761	C-9
D479	E-6	D762	D-9
D502	I-7	D763	D-8
D503	I-5	D764	D-8
D510	G-8		
D511	F-6	IC401	E-3
D512	H-8	IC501	H-6
D580	F-10	IC602	I-9
D581	F-10	IC750	B-6
D601	C-10		
D609	C-8	Q1	F-3
D617	C-9	Q431	B-4
D651	C-9	Q441	B-4
D701	I-3	Q451	C-4
D702	I-3	Q461	D-4
D719	I-4	Q471	B-3
D751	C-7	Q478	E-6
D752	C-7	Q479	E-5
D753	C-7	Q481	C-3
D754	C-7	Q580	F-10
D755	C-6	Q581	I-10
D756	C-6	Q582	I-10
D757	C-6	Q631	H-10
D758	C-6	Q651	D-8
D759	D-8	Q664	I-7
D760	D-8		

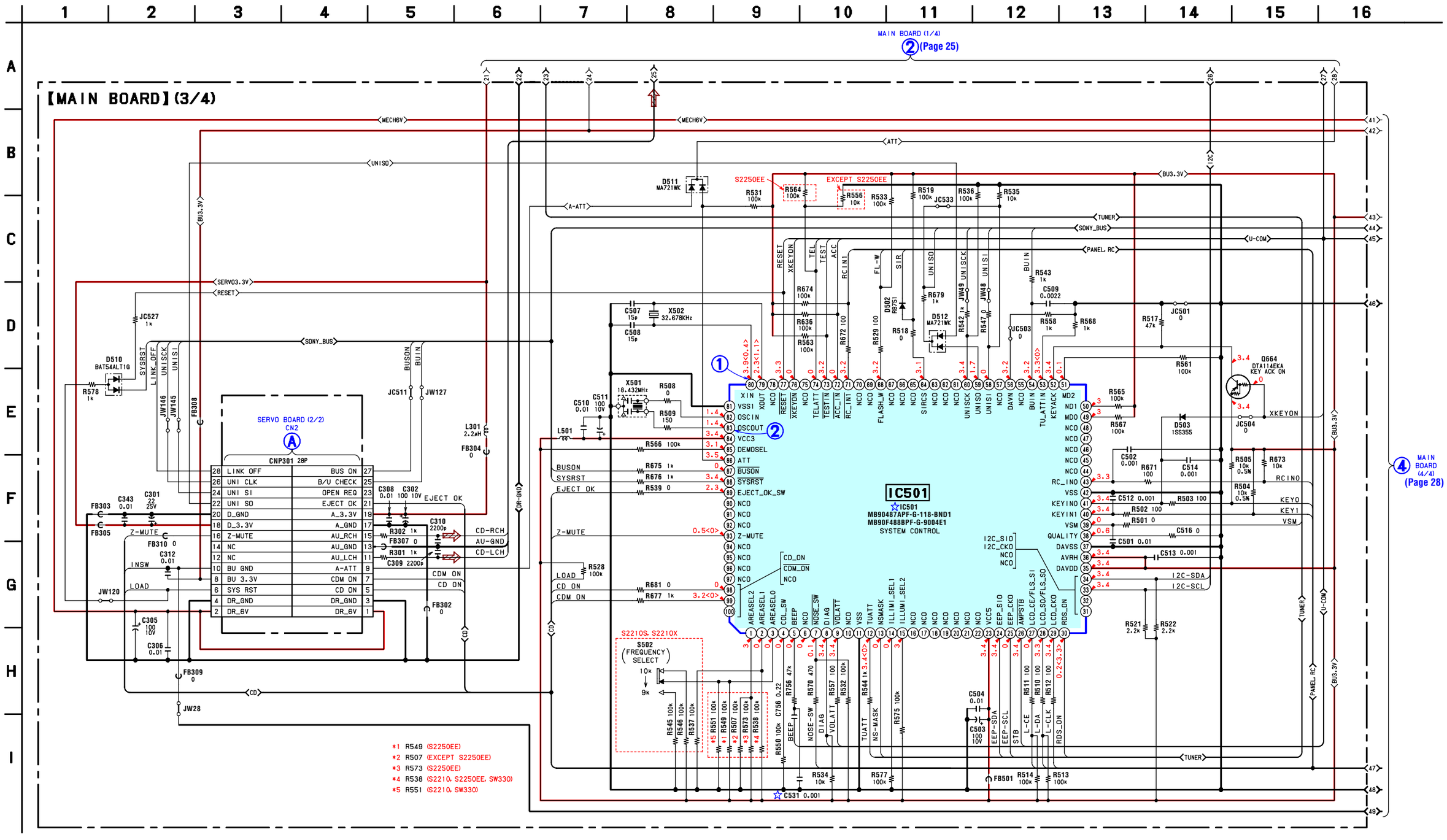
3-8. SCHEMATIC DIAGRAM – MAIN BOARD (1/4) – • See page 32 for IC Block Diagram. • See page 20 for Waveforms.



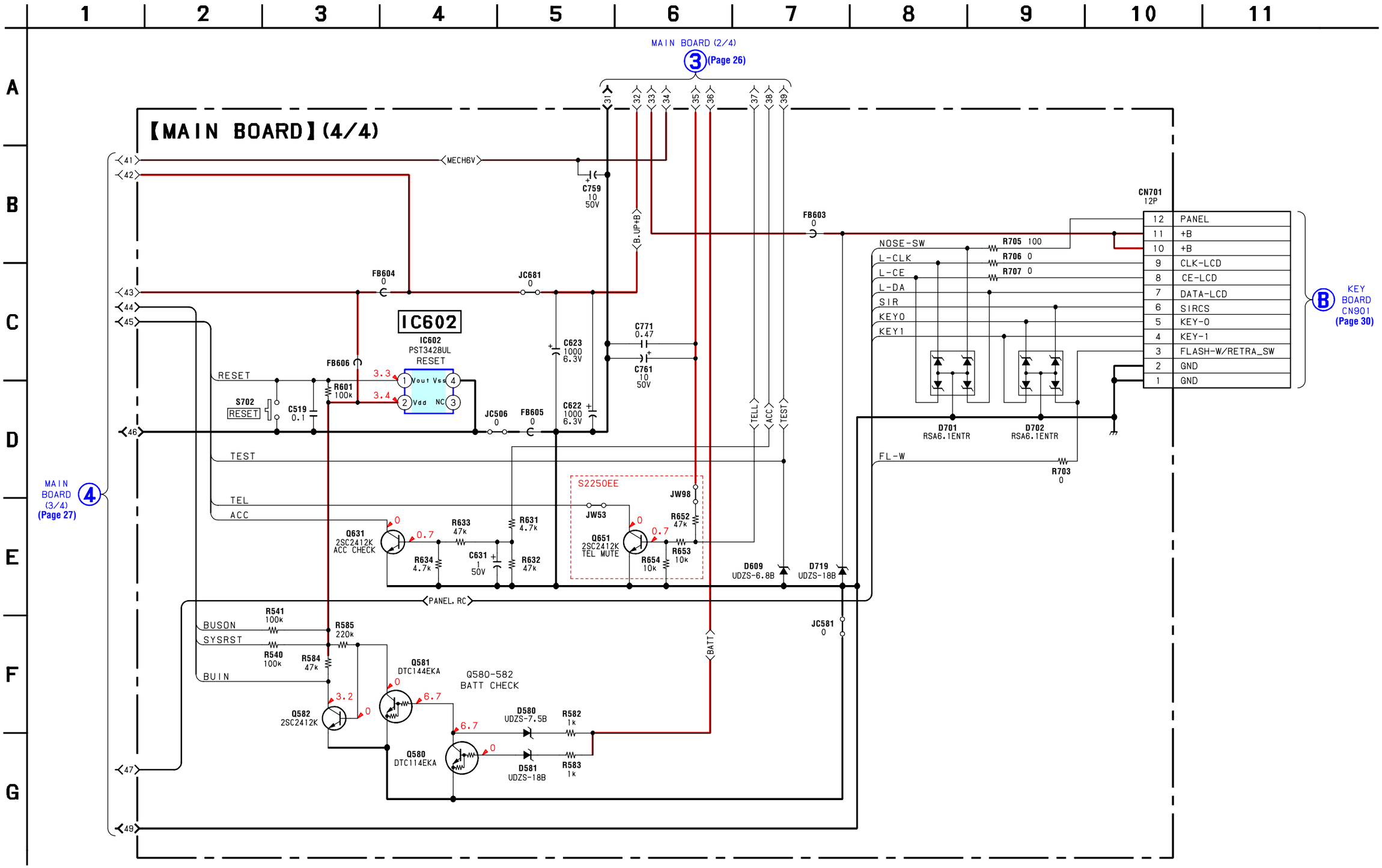
3-9. SCHEMATIC DIAGRAM – MAIN BOARD (2/4) – • See page 34 for IC Block Diagram.



3-10. SCHEMATIC DIAGRAM – MAIN BOARD (3/4) – • See page 20 for Waveforms. • See page 37 for IC Pin Descriptions.

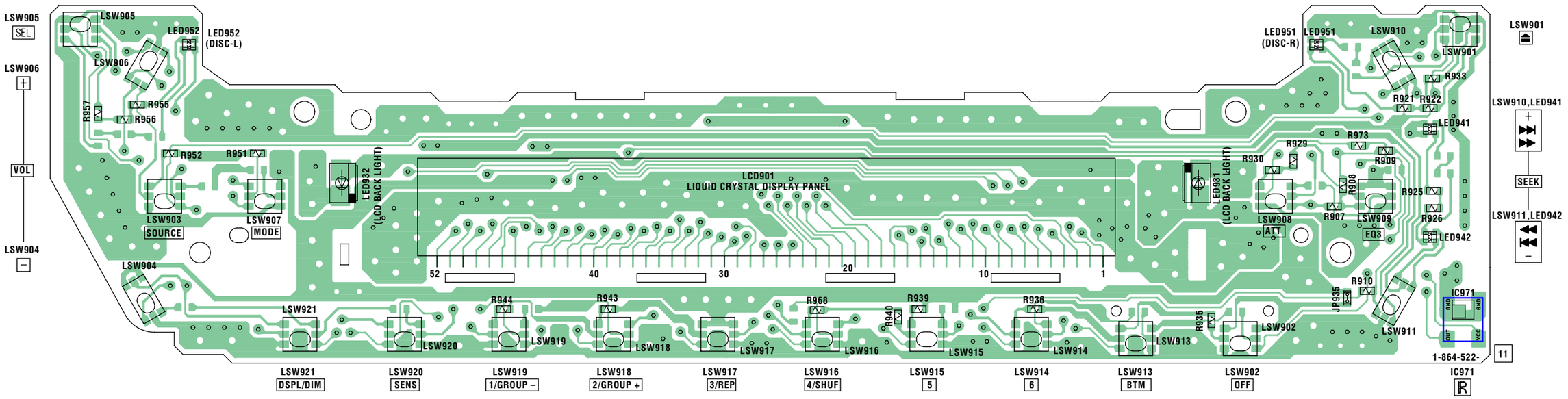


3-11. SCHEMATIC DIAGRAM – MAIN BOARD (4/4) –

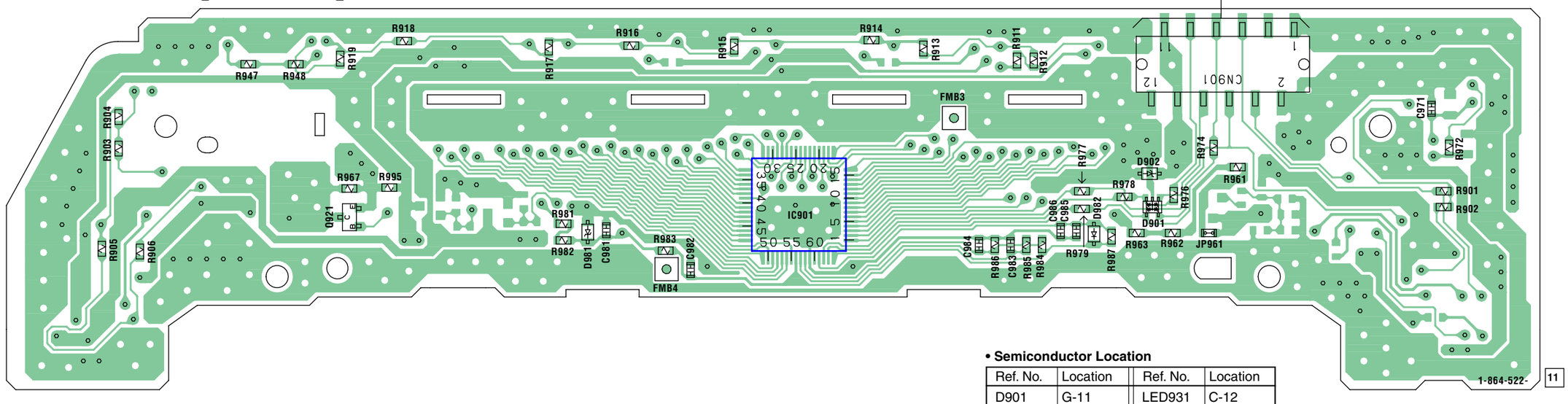


3-12. PRINTED WIRING BOARD – KEY BOARD – • See page 19 for Circuit Boards Location. : Uses unleaded solder.

【KEY BOARD】(SIDE A)



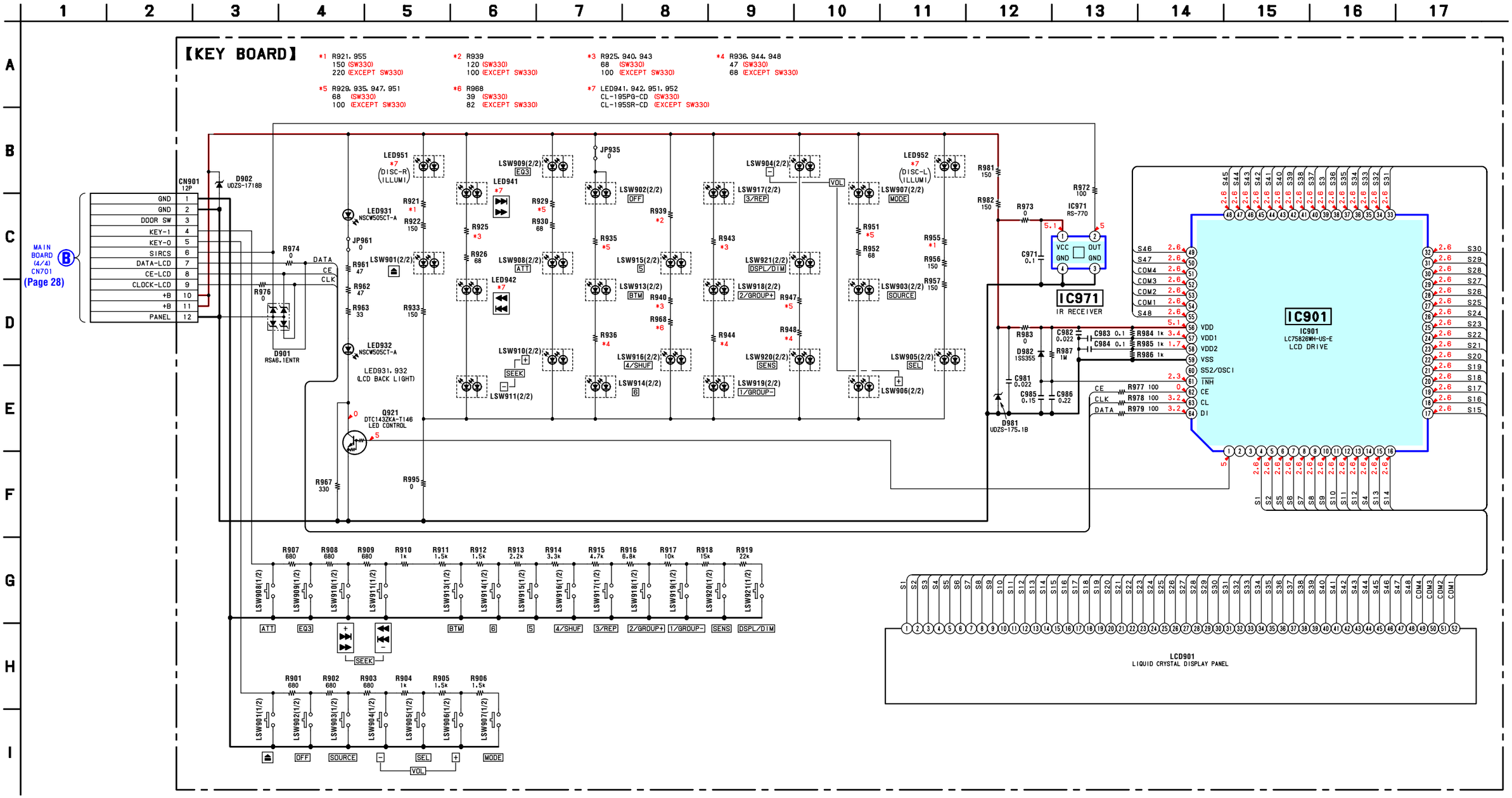
【KEY BOARD】(SIDE B)



• **Semiconductor Location**

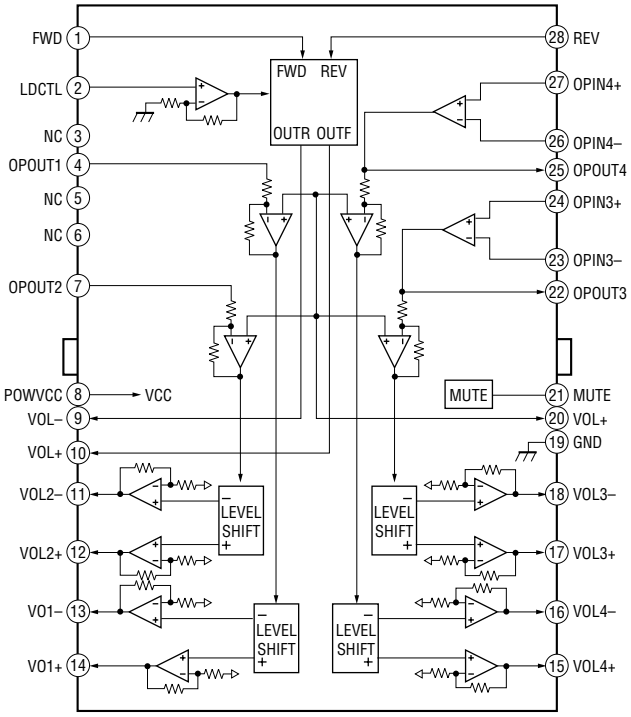
Ref. No.	Location	Ref. No.	Location
D901	G-11	LED931	C-12
D902	G-11	LED932	C-4
D981	G-6	LED941	B-14
D982	G-10	LED942	C-14
		LED951	A-12
IC901	G-8	LED952	A-2
IC971	D-14		
		Q921	G-4

3-13. SCHEMATIC DIAGRAM – KEY BOARD –

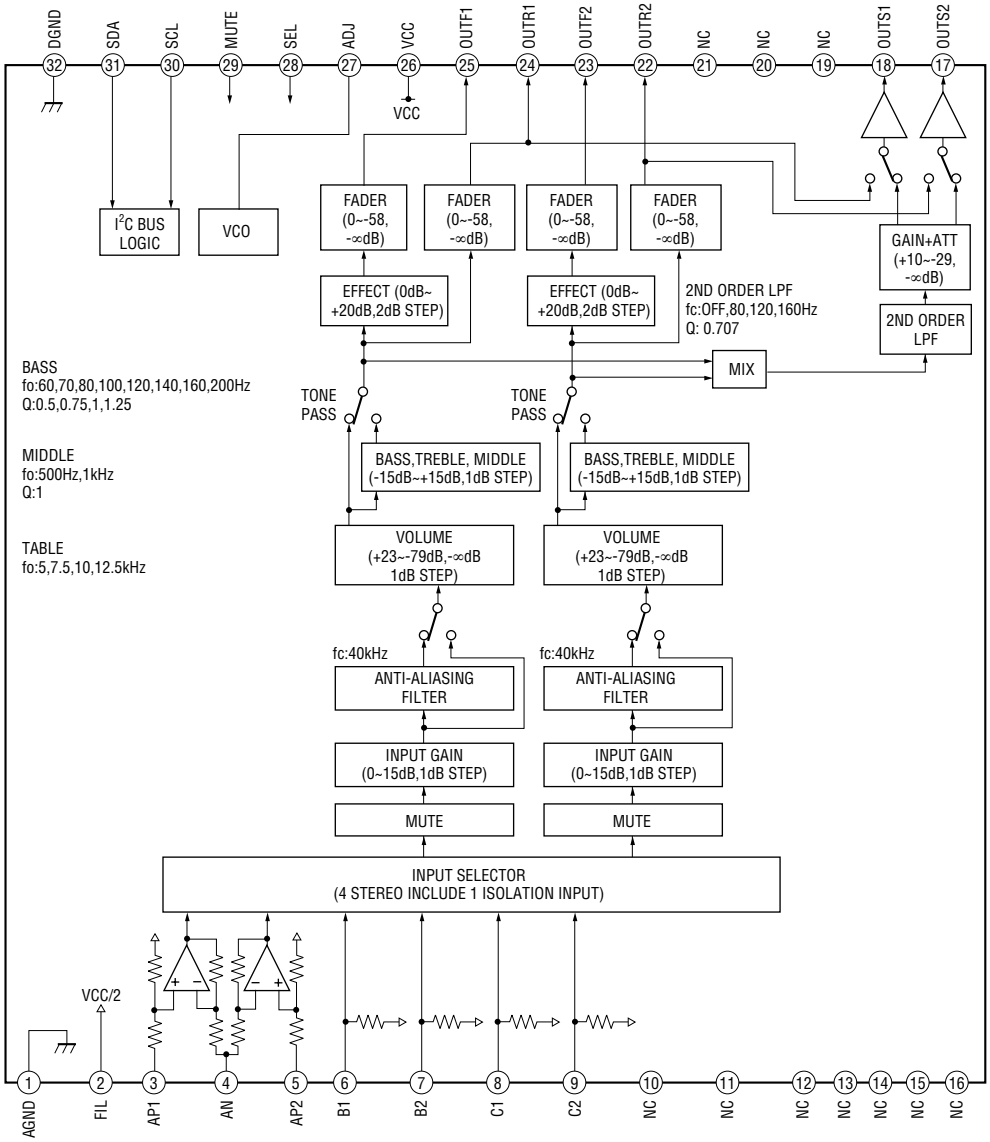


• **IC Block Diagrams**

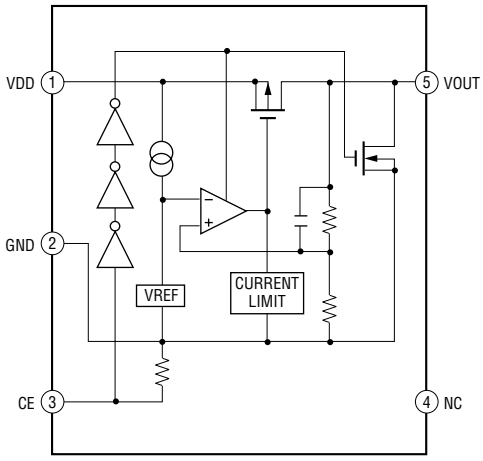
IC1 BA5968FP-E2



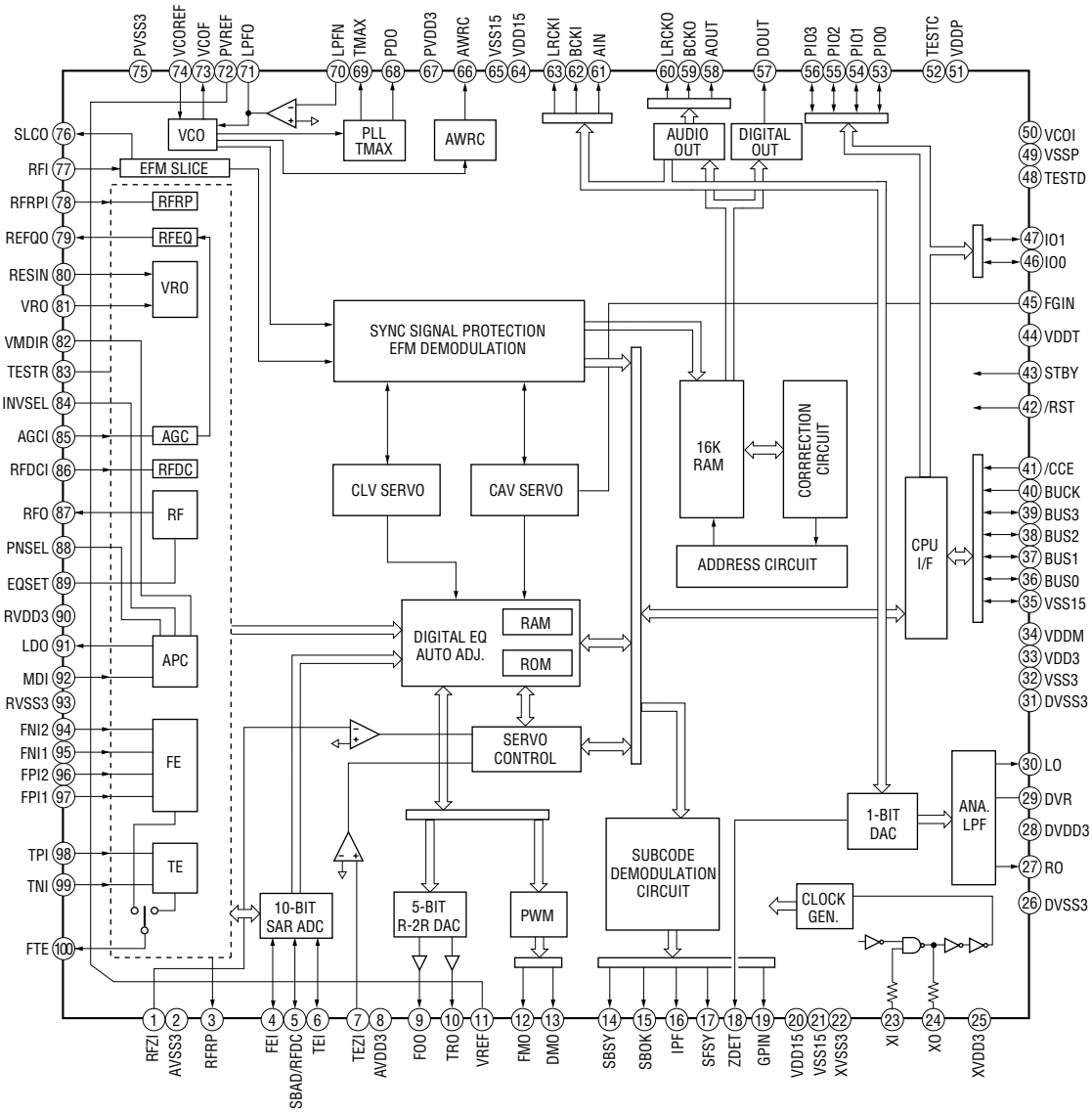
IC401 BD3808FS-FE2



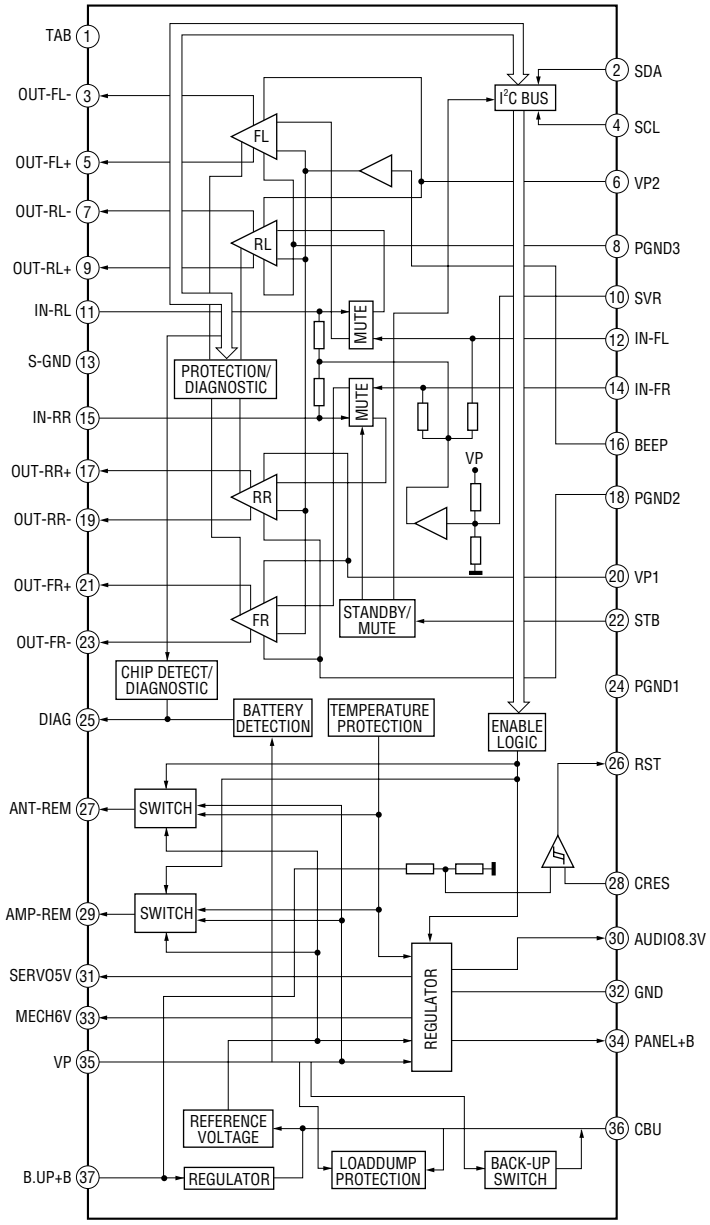
IC6 R1114N151D-TR-FA



IC2 TC94A60MFG-301



IC750 TDA8588BJ/N2/R1



• IC Pin Descriptions

IC3 MB90487APFV-G-131-BNDE1 (CD SYSTEM CONTROL) (SERVO BOARD (2/2))

Pin No.	Pin Name	I/O	Pin Description
1	NC	O	Servo 1.5 V power supply control signal output
2 to 6	NC	—	Not used. (Open)
7	CD BUS0	I/O	Bus data signal input/output 0
8	CD BUS1	I/O	Bus data signal input/output 1
9	VSS	—	Ground pin
10	CD BUS2	I/O	Bus data signal input/output 2
11	CD BUS3	I/O	Bus data signal input/output 3
12	CD BUCK	O	Bus clock signal output
13	CD XCCE	O	Chip enable signal output
14	CD XRST	O	Reset signal output
15	CD ZDET	I	Zero detection signal input
16 to 20	NC	—	Not used. (Open)
21	VCC	—	Power supply pin (+3.3 V)
22	DAC ZDETL	I	Zero data detection signal input (L-ch)
23	DAC ZDETR	I	Zero data detection signal input (R-ch)
24	NC	—	Not used. (Open)
25	RXD	I	UART RXD data signal input (MCBUS/Flash data input)
26	TXD	O	UART TXD data signal output (MCBUS/Flash data output)
27	DEC SSTBY	O	SRAM STANDBY mode control signal output
28, 29	NC	—	Not used. (Open)
30	DEC INT	I	Request signal input
31, 32	NC	—	Not used. (Open)
33	AVCC	—	Power supply pin (+3.3 V) for A/D converter
34	AVRH	—	External reference voltage for A/D converter
35	AVSS	—	Ground pin
36	NC	—	Not used. (Open)
37	DEC XMUTE	O	Mute signal output L: mute
38, 39	NC	—	Not used. (Open)
40	VSS	—	Ground pin
41	NC	—	Not used. (Open)
42	MEC LIMIT	I	Sled limit in detection switch signal input
43	MEC LOAD	O	Loading motor signal output (Load direction)
44	MEC EJECT	O	Loading motor signal output (Eject direction)
45	MEC INSW	I	Pack-in detection signal input
46	MEC DSW	I	Chucking end detection switch signal input
47, 48	MD0, MD1	I	CPU operation mode designation signal input (Connect to Vcc.)
49	MD2	I	CPU operation mode designation signal input (Connect to Vss.)
50	$\overline{\text{BUS ON}}$	I	Bus on signal input L: bus on
51	BU IN	I	Backup on/off signal input H: backup on, L: backup off
52	$\overline{\text{CD SBSY}}$	I	SUBQ sync signal input L: interruption
53	$\overline{\text{MEC SELFSW}}$	I	Disc insert detection switch signal input L: disc in interruption
54, 55	NC	—	Not used. (Open)
56	UNISI	I	Serial data signal input
57	UNISO	O	Serial data signal output
58	UNICKI	I	Serial clock signal input
59	LINEOFF	O	Line off signal output
60	A ATT	O	Audio attenuation signal output H: ATT on
61	EJECT OK	I	Front panel open signal input H: eject
62	OPEN REQ	O	Front panel open/close request signal output H: open request
63	MECON	O	Mechanism deck power supply control signal output
64	CDON	O	Servo power supply control signal output

Pin No.	Pin Name	I/O	Pin Description
65	XUART	I	Sony-Bus/MC-Bus change signal input H: Sony-Bus, L: MC-Bus
66	ZMUTE	O	Zero detection mute signal output
67	MECON CHK	I	MECON rising detection signal input
68	CDON CHK	I	CDON rising detection signal input
69 to 74	NC	—	Not used. (Open)
75	$\overline{\text{RSTX}}$	I	System reset signal input
76	NC	—	Not used. (Open)
77	X1A	—	Sub-clock connect pin Not used in this set. (Open)
78	X0A	—	Sub-clock connect pin Not used in this set. (Connect to Vss.)
79	VSS	—	Ground pin
80	X0	I	Main-clock connect pin (12 MHz)
81	X1	O	Main-clock connect pin (12 MHz)
82	VCC	—	Power supply pin (+3.3 V)
83	XTS	I	Not used in this set. (Open)
84	XINIT3	I	Not used in this set. (Open)
85	NC	—	Not used. (Open)
86	XSJIG	I	Not used in this set. (Open)
87 to 89	XINIT0 to 2	I	Not used in this set. (Open)
90 to 97	NC	—	Not used. (Open)
98	XLINE	I	Not used in this set. (Open)
99, 100	NC	—	Not used. (Open)

IC501 MB90487A118 (SYSTEM CONTROL) (MAIN BOARD (3/4))

Pin No.	Pin Name	I/O	Pin Description
1	AREA SEL2	I	Destination setting pin
2	AREA SEL1	I	Destination setting pin
3	AREA SEL0	I	Destination setting pin
4	COL SW	I	Illumination color select signal input
5	BEEP	O	Beep signal output
6	NCO	O	Not used
7	NOSE SW	I	Front panel open/close detect signal input
8	DIAG	I	Power AMP status signal input
9	VOL ATT	O	Electronic volume attenuate control signal output
10	NCO	O	Not used
11	VSS	—	Ground
12	TU ATT	O	Tuner mute control signal output
13	NS MASK	O	Noise mask signal output
14	ILLUMI SEL1	I	Illumination voltage setting pin
15	ILLUMI SEL2	I	Illumination voltage setting pin
16	NCO	O	Not used
17	NCO	O	Not used
18	NCO	O	Not used
19	NCO	O	Not used
20	NCO	O	Not used
21	NCO	O	Not used
22	NCO	O	Not used
23	VCC5	—	Power supply pin (+3.3V)
24	EEP SIO	I/O	EEPROM bus serial data input/output
25	EEP CKO	O	EEPROM bus serial clock output
26	AMP STB	O	Power AMP satandby signal output
27	LCD CE	O	LCD driver chip enable output
28	LCD SO	O	LCD driver serial data output
29	LCD SCK	O	LCD driver serial clock output
30	RDS ON	O	RDS ON signal output
31	NCO	O	Not used
32	NCO	O	Not used
33	I2C SCK	O	I2C bus serial clock output
34	I2C SIO	I/O	I2C bus serial data input/output
35	DAVDD	—	A/D converter power supply pin (+3.3V)
36	AVRH	—	A/D converter reference power supply pin (+3.3V)
37	DAVSS	—	Ground
38	QUALITY	I	Noise detect signal input
39	VSM	I	S-meter voltage detect signal input
40	KEY IN1	I	Key signal input
41	KEY IN0	I	Key signal input
42	VSS	—	Ground
43	RC IN0	I	Rotary commander key signal input
44	NCO	O	Not used
45	NCO	O	Not used
46	NCO	O	Not used
47	NCO	O	Not used
48	NCO	O	Not used
49	MD0	I	Operation mode setting pin
50	MD1	I	Operation mode setting pin
51	MD2	I	Operation mode setting pin
52	KEY ACK	I	Key acknowledgment detect signal input

Pin No.	Pin Name	I/O	Pin Description
53	TU ATT IN	I	Tuner mute zero cross detect signal input
54	BU IN	I	Back-up power supply detect signal input
55	NCO	O	Not used
56	DAVN	I	RDS data block synchronized detect signal input
57	NCO	O	Not used
58	UNI SI	I	SONY bus data input
59	UNI SO	O	SONY bus data output
60	UNI SCK	O	SONY bus clock output
61	NCO	O	Not used
62	NCO	O	Not used
63	NCO	O	Not used
64	SIRCS	I	Remote control signal input
65	NCO	O	Not used
66	NCO	O	Not used
67	NCO	O	Not used
68	FLASH W	I	Memory mode select signal input
69	NCO	O	Not used
70	NCO	O	Not used
71	RC IN1	I	Rotary commander shift key signal input
72	ACC IN	I	Accessory power supply detect signal input
73	TEST IN	I	Test mode detect signal input
74	TEL ATT	I	Telephone attenuate detect signal input
75	NCO	O	Not used
76	XKEY ON	O	A/D converter power supply control signal output
77	RESET	I	CPU reset input
78	NCO	O	Not used
79	XOUT	—	Sub-clock output (32.768kHz)
80	XIN	—	Sub-clock input (32.768kHz)
81	VSS1	—	Ground
82	OSC IN	—	Main-clock input (3.68MHz)
83	OSC OUT	—	Main-clock output (3.68MHz)
84	VCC3	—	Power supply pin (+3.3V)
85	DEMO SEL	I	Demo select signal input
86	ATT	O	Audio mute control signal output
87	BUS ON	O	Bus ON signal output
88	SYS RST	O	System reset output
89	EJECT OK SW	O	Eject OK signal output signal
90	NCO	O	Not used
91	NCO	O	Not used
92	NCO	O	Not used
93	Z-MUTE	I	CD zero cross mute detect signal input
94	NCO	O	Not used
95	NCO	O	Not used
96	NCO	O	Not used
97	NCO	O	Not used
98	CD ON	I	CD servo power control request signal input
99	CDM ON	I	CD deck power control request signal input
100	NCO	O	Not used

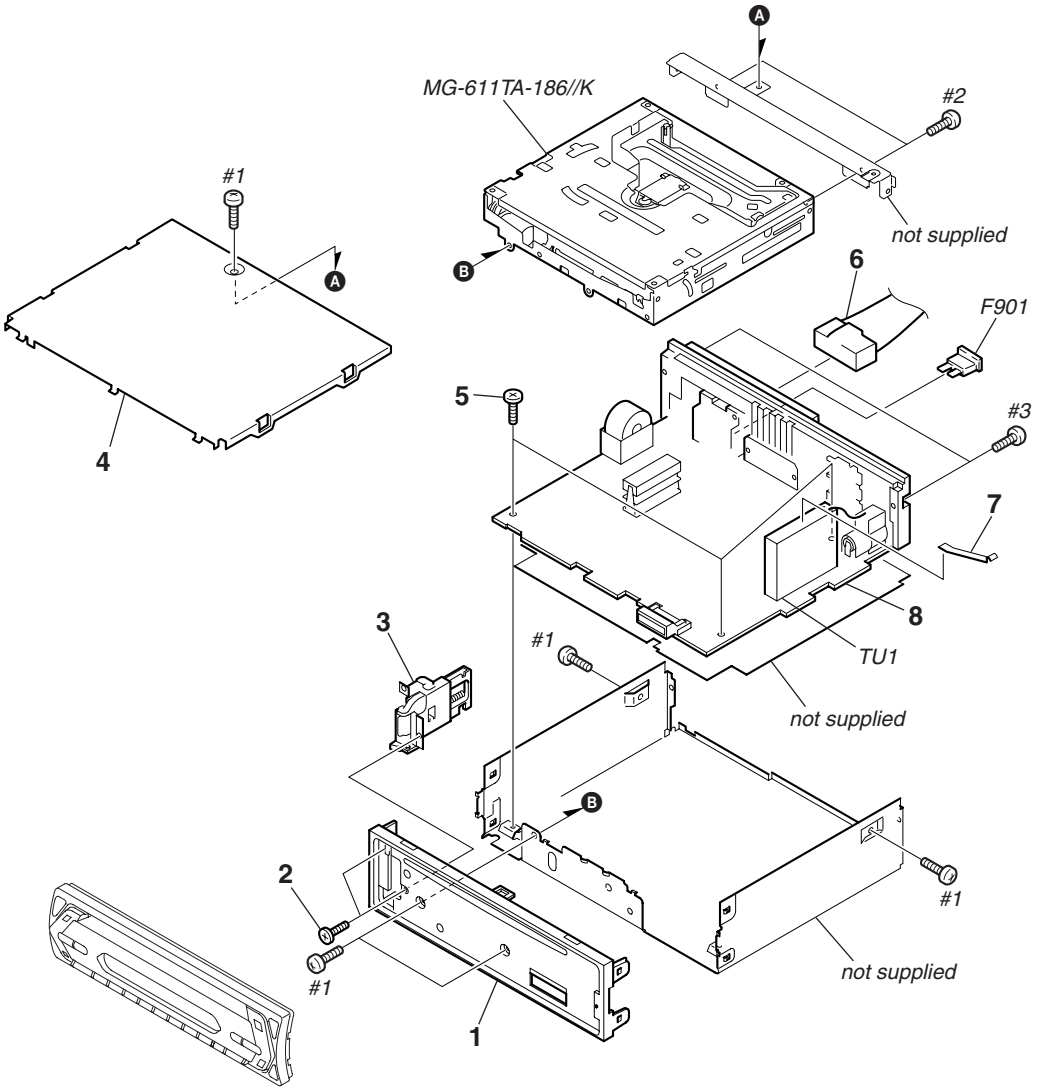
SECTION 4
EXPLODED VIEWS

NOTE:
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example :
  KNOB, BALANCE (WHITE) ... (RED)
  ↑ Parts Color ↑ Cabinet's Color
- Accessories are given in the last of this parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

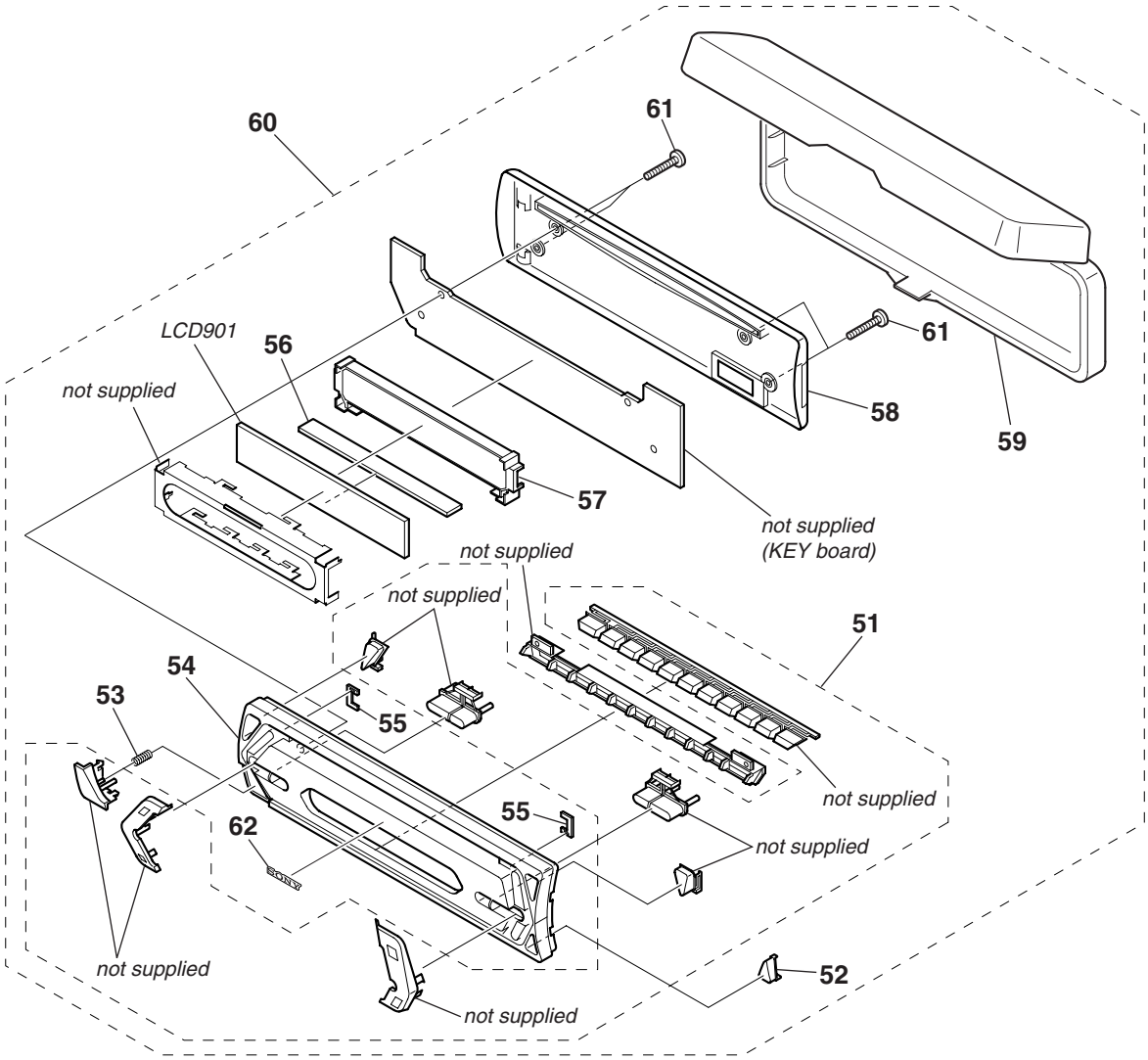
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

4-1. MAIN SECTION



Ref. No.	Part No.	Description	Remark
1	X-2023-967-1	PANEL (LCD) ASSY, SUB	
2	2-583-939-01	SCREW (+B 2X4)	
3	X-2024-365-1	LOCK ASSY (S)	
4	3-246-006-31	COVER	
5	2-583-940-01	SCREW (+BTT)	
6	1-776-206-21	CORD (WITH CONNECTOR) (POWER) (EXCEPT S2250EE)	
6	1-776-527-61	CORD (WITH CONNECTOR) (ISO) (POWER) (S2250EE)	
7	2-345-298-01	PLATE (TU), GROUND	
8	A-1083-385-A	MAIN BOARD, COMPLETE (S2210/SW330)	
8	A-1083-453-A	MAIN BOARD, COMPLETE (S2210S/S2210X)	
8	A-1083-614-A	MAIN BOARD, COMPLETE (S2250EE)	
F901	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	
TU1	A-3220-961-A	TUNER UNIT (TUX-032)	
#1	7-685-792-09	SCREW +PTT 2.6X6 (S)	
#2	7-685-790-01	SCREW +PTT 2.6X4 (S)	
#3	7-685-793-09	SCREW +PTT 2.6X8 (S)	

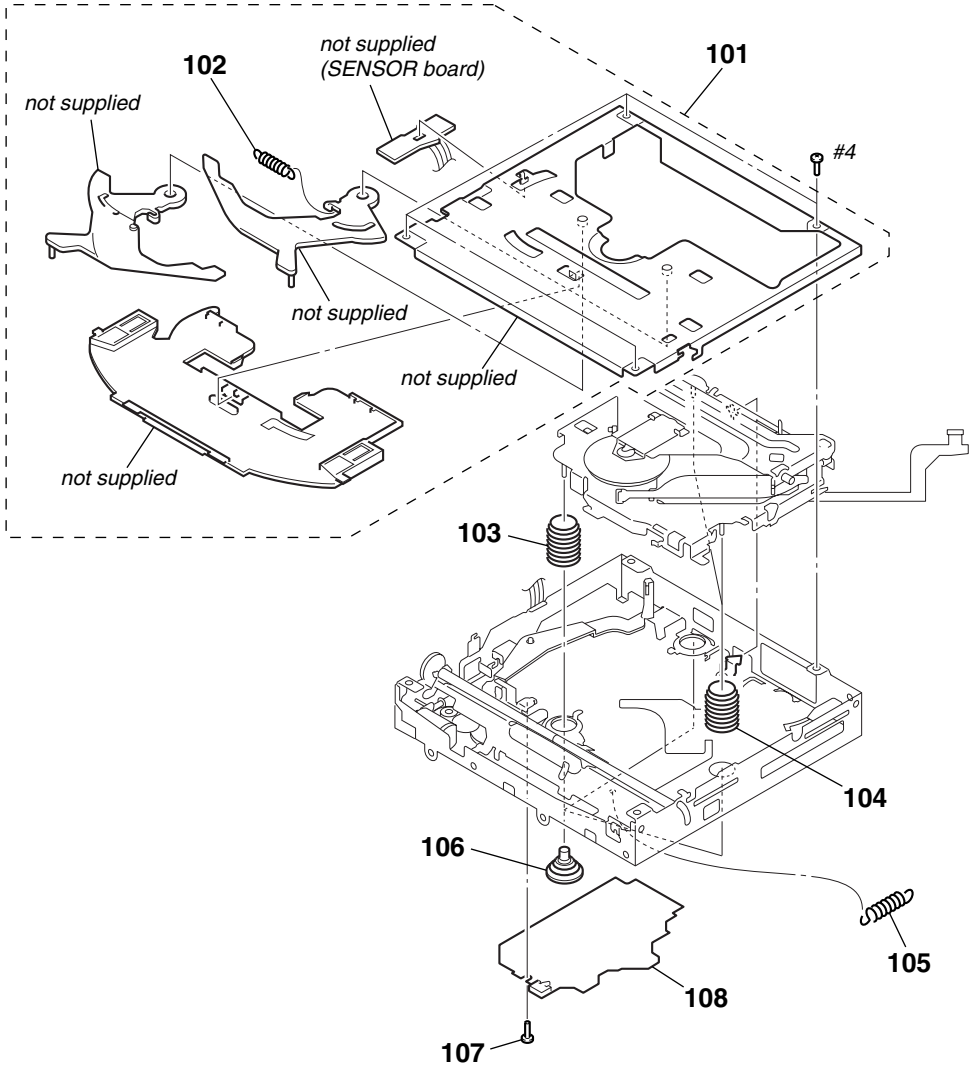
4-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	X-2024-506-1	BUTTON ASSY (S) (S2210X)	
51	X-2024-531-1	BUTTON ASSY (S) (S2210S/S2250EE)	
51	X-2025-194-1	BUTTON ASSY (S) (S2210/SW330)	
52	2-187-736-11	FILTER (IR) (S2210S/S2250EE)	
52	2-187-736-21	FILTER (IR) (S2210/S2210X/SW330)	
53	2-187-738-01	SPRING (RELEASE)	
54	X-2048-526-1	PANEL SUB ASSY, FRONT (S2210S)	
54	X-2048-527-1	PANEL SUB ASSY, FRONT (S2210)	
54	X-2048-528-1	PANEL SUB ASSY, FRONT (S2210X)	
54	X-2048-529-1	PANEL SUB ASSY, FRONT (S2250EE)	
54	X-2048-533-1	PANEL SUB ASSY, FRONT (SW330)	
55	2-187-737-01	PLATE (CD), LIGHT GUIDE	
56	1-780-199-11	CONDUCTIVE BOARD, CONNECTION	

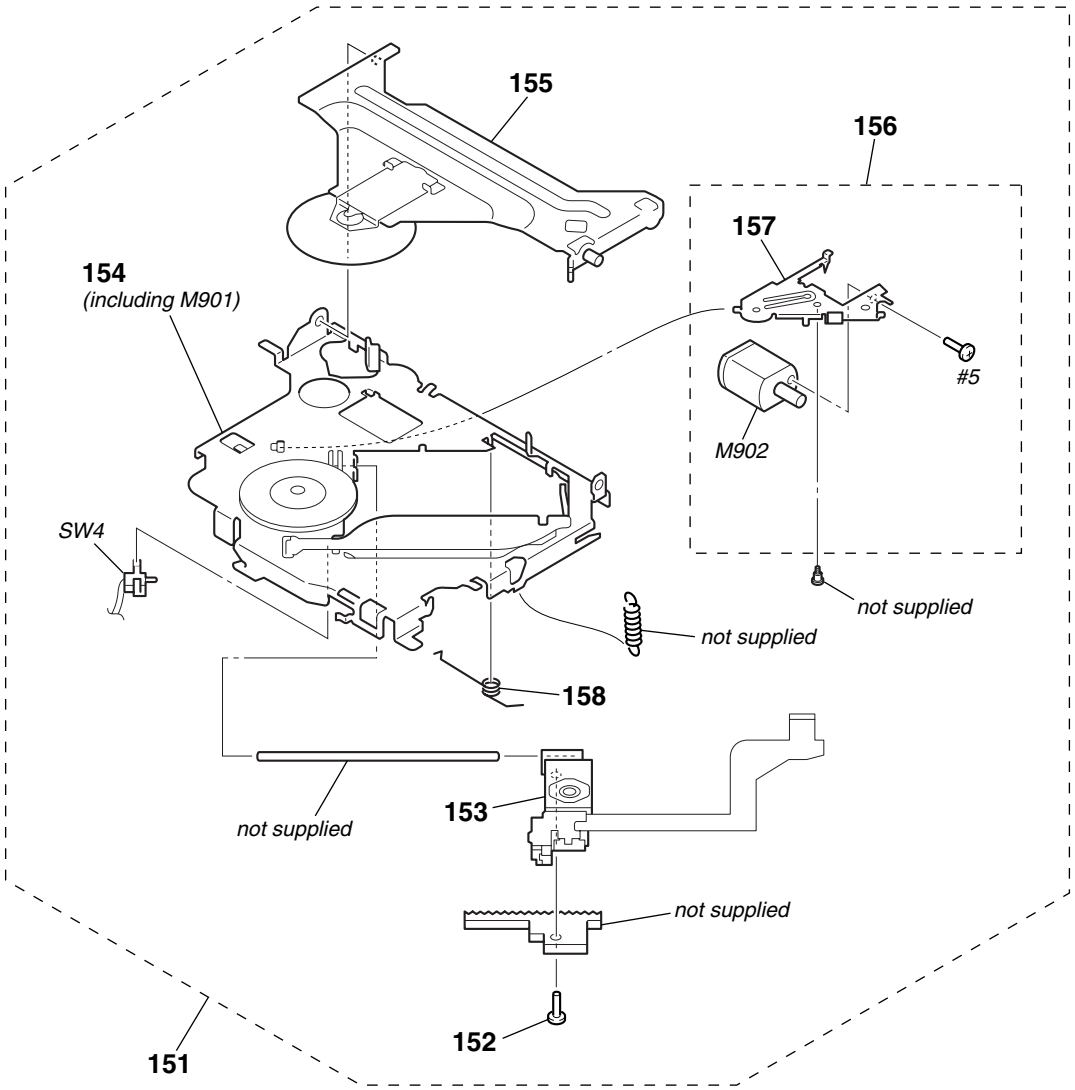
Ref. No.	Part No.	Description	Remark
57	X-2023-711-1	HOLDER (LCD) ASSY	
58	2-187-728-01	PANEL, FRONT BACK	
59	X-2024-133-1	CASE ASSY (for FRONT PANEL)	
60	A-1083-387-A	PANEL COMPLETE ASSY, FRONT (S2210)	
60	A-1083-455-A	PANEL COMPLETE ASSY, FRONT (S2210S)	
60	A-1083-603-A	PANEL COMPLETE ASSY, FRONT (S2210X)	
60	A-1083-616-A	PANEL COMPLETE ASSY, FRONT (S2250EE)	
60	A-1092-079-A	PANEL COMPLETE ASSY, FRONT (SW330)	
61	3-250-543-31	SCREW (+B P-TITE M2)	
62	3-251-320-01	EMBLEM (NO. 2.5), SONY (S2210/S2210X/SW330)	
62	3-251-320-11	EMBLEM (NO. 2.5), SONY (S2210S/S2250EE)	
LCD901	1-805-765-11	DISPLAY PANEL, LIQUID CRYSTAL	

4-3. CD MECHANISM SECTION (1)
(MG-611TA-186//K)



Ref. No.	Part No.	Description	Remark
101	A-3372-455-A	CHASSIS (T) SUB ASSY	
102	3-253-729-01	SPRING (LTR), TENSION COIL	
103	3-253-746-14	SPRING (DAMPER), COMPRESSION	
104	3-253-746-03	SPRING (DAMPER), COMPRESSION	
105	2-345-767-01	SPRING (KF60), TENSION	
106	3-253-748-01	DAMPER (S)	
107	3-352-758-31	SCREW (M1.7), TOOTHED LOCK	
108	A-1075-784-A	SERVO BOARD, COMPLETE	
#4	7-627-552-87	SCREW, PRECISION +P 1.7X2.2	

4-4. CD MECHANISM SECTION (2)
(MG-611TA-186//K)

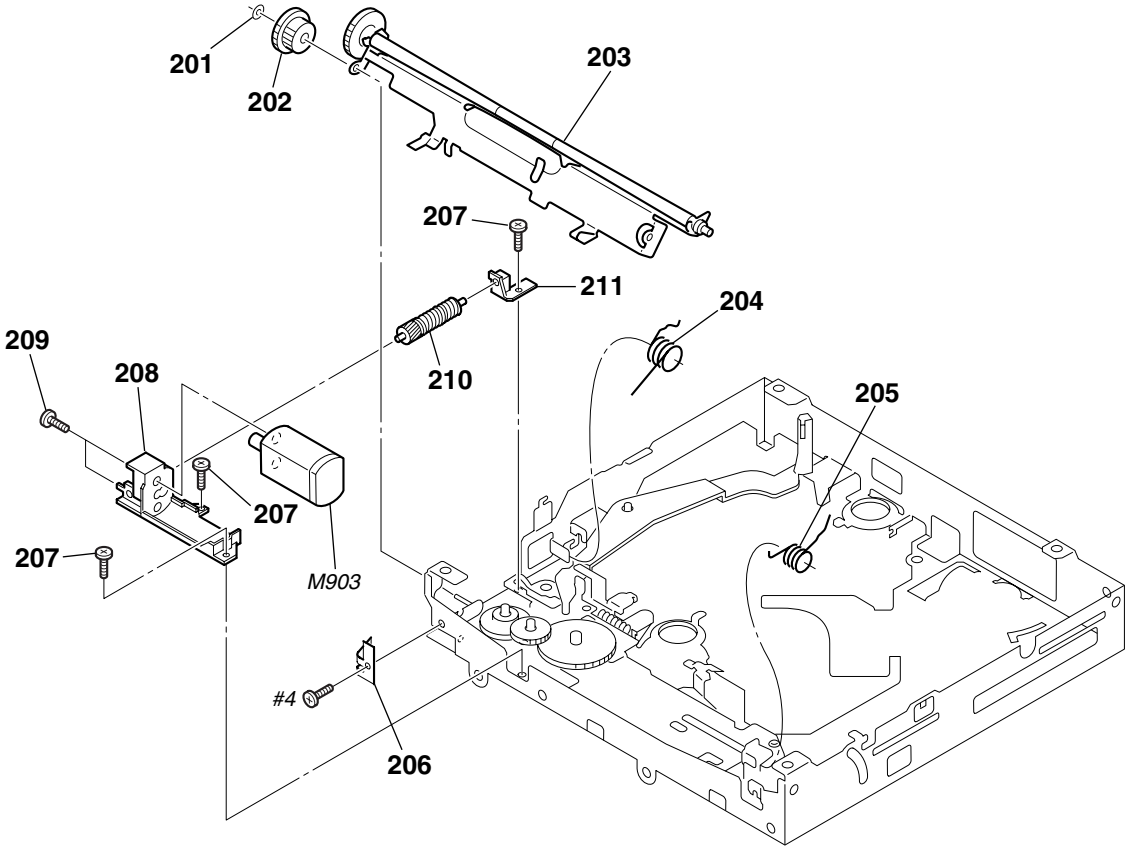


The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
151	A-1075-786-A	CHASSIS (OP) COMPLETE ASSY	
152	3-316-938-91	SCREW (B1.4X5), TAPPING	
⚠153	8-820-207-12	OPTICAL PICK-UP (KSS1000E/K1RP)	
154	A-1075-787-A	CHASSIS (OP) SUB ASSY (including M901)	
155	A-3337-641-A	ARM SUB ASSY, CHUCKING	
156	A-3337-639-A	LEVER (SL) SUB ASSY	

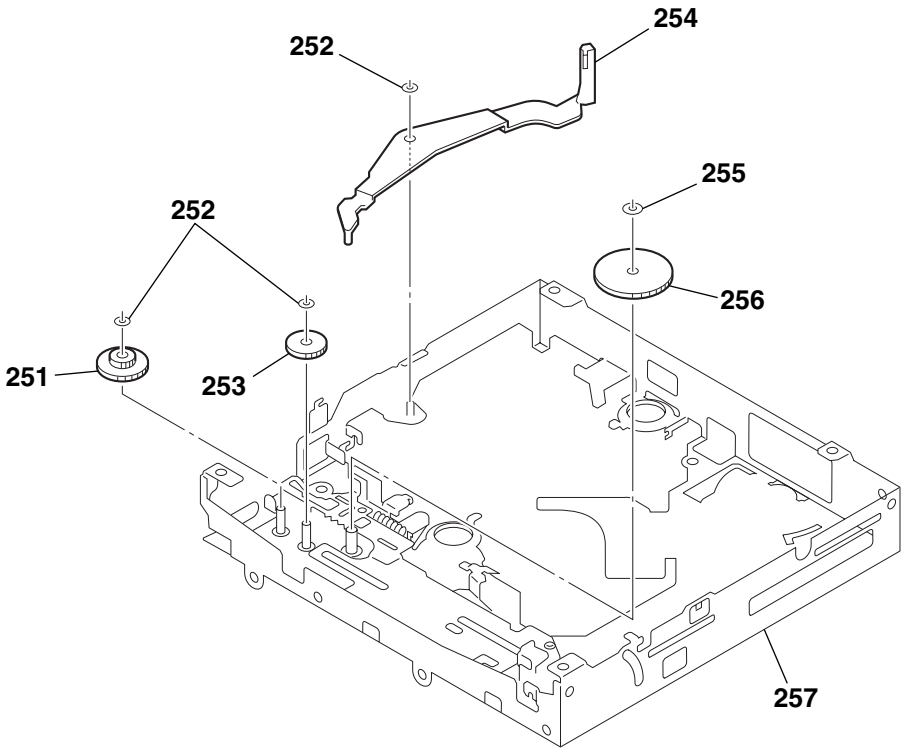
Ref. No.	Part No.	Description	Remark
157	X-3383-454-3	LEVER (SL) ASSY	
158	3-261-959-02	SPRING (SL), TORSION	
M902	A-3337-638-A	MOTOR ASSY, SL (SLED)	
SW4	1-571-099-11	SWITCH (1 KEY) (LIMIT)	
#5	7-627-850-77	SCREW, PRECISION +P 1.4X1.8	

4-5. CD MECHANISM SECTION (3)
(MG-611TA-186//K)



Ref. No.	Part No.	Description	Remark
201	3-262-755-01	WASHER (1.1-2.5)	
202	2-186-699-11	GEAR (RA1)	
203	A-1075-789-A	ARM ASSY, ROLLER	
204	3-259-455-02	SPRING (RAL)	
205	3-253-713-01	SPRING (RAR)	
206	3-259-469-01	SPRING (LE), LEAF	
207	2-134-636-31	SCREW (M1.7X2.5)	
208	2-186-696-11	BRACKET (LEM-N)	
209	3-345-648-91	SCREW (M1.4), TOOTHED LOCK	
210	A-1083-637-A	GEAR (LE) ASSY	
211	2-186-697-11	BEARING (LEB-N)	
M903	A-1075-792-A	MOTOR ASSY, LE (LOADING)	
#4	7-627-552-87	SCREW, PRECISION +P 1.7X2.2	

4-6. CD MECHANISM SECTION (4)
(MG-611TA-186//K)



Ref. No.	Part No.	Description	Remark
251	2-186-700-11	GEAR (CHK1)	
252	3-344-223-01	WASHER	
253	3-259-470-01	GEAR (LE1)	
254	3-253-755-02	LEVER (D)	
255	3-899-829-01	WASHER (SLIT)	
256	3-259-032-01	GEAR (LE2)	
257	A-1075-791-A	CHASSIS (M) BLOCK ASSY	

SECTION 5
ELECTRICAL PARTS LIST

KEY

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable

When indicating parts by reference number, please include the board.

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : µ, for example:
  uA.. : µA.. uPA.. : µPA..
  uPB.. : µPB.. uPC.. : µPC.. uPD.. : µPD..
- CAPACITORS
  uF : µF
- COILS
  uH : µH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

Ref. No.	Part No.	Description			Remark
		KEY BOARD			
		**********			
	1-780-199-11	CONDUCTIVE BOARD, CONNECTION			
		< CAPACITOR >			
C971	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C981	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C982	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C983	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C984	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C985	1-131-664-11	CERAMIC CHIP	0.15uF	10%	10V
C986	1-127-715-91	CERAMIC CHIP	0.22uF	10%	10V
		< CONNECTOR >			
CN901	1-794-312-11	PIN, CONNECTOR 12P			
		< DIODE >			
D901	6-500-886-01	DIODE RSA6.1ENTR			
D902	8-719-083-66	DIODE UDZSTE-1718B			
D981	8-719-069-54	DIODE UDZSTE-175.1B			
D982	8-719-988-61	DIODE 1SS355TE-17			
		< IC >			
IC901	6-707-063-01	IC LC75826WH-US-E			
IC971	6-600-163-01	IC RS-770 (IR)			
		< JUMPER RESISTOR >			
JP935	1-216-864-11	SHORT CHIP	0		
JP961	1-216-864-11	SHORT CHIP	0		
		< LIQUID CRYSTAL DISPLAY >			
LCD901	1-805-765-11	DISPLAY PANEL, LIQUID CRYSTAL			
		< DIODE >			
LED931	6-501-062-01	LED NSCW505CT-AST (LCD BACK LIGHT)			
LED932	6-501-062-01	LED NSCW505CT-AST (LCD BACK LIGHT)			
LED941	6-500-450-01	LED CL-195SR-CD-T (▶▶I ▶▶)			(EXCEPT SW330)
LED941	6-500-510-01	LED CL-195PG-CD-T (▶▶I ▶▶) (SW330)			
LED942	6-500-450-01	LED CL-195SR-CD-T (◀◀ I◀◀)			(EXCEPT SW330)
LED942	6-500-510-01	LED CL-195PG-CD-T (◀◀ I◀◀) (SW330)			
LED951	6-500-450-01	LED CL-195SR-CD-T (DISC-R) (EXCEPT SW330)			
LED951	6-500-510-01	LED CL-195PG-CD-T (DISC-R) (SW330)			
LED952	6-500-450-01	LED CL-195SR-CD-T (DISC-L) (EXCEPT SW330)			
LED952	6-500-510-01	LED CL-195PG-CD-T (DISC-L) (SW330)			
		< SWITCH >			
LSW901	1-786-805-11	SWITCH, TACTILE (WITH LED) (⏏)			(EXCEPT SW330)
LSW901	1-786-806-11	SWITCH, TACTILE (WITH LED) (⏏) (SW330)			
LSW902	1-786-805-11	SWITCH, TACTILE (WITH LED) (OFF)			(EXCEPT SW330)
LSW902	1-786-806-11	SWITCH, TACTILE (WITH LED) (OFF) (SW330)			
LSW903	1-786-805-11	SWITCH, TACTILE (WITH LED) (SOURCE)			(EXCEPT SW330)
LSW903	1-786-806-11	SWITCH, TACTILE (WITH LED) (SOURCE)			(SW330)
LSW904	1-786-800-11	SWITCH, TACTILE (WITH LED) (VOL -)			(EXCEPT SW330)
LSW904	1-786-801-11	SWITCH, TACTILE (WITH LED) (VOL -) (SW330)			
LSW905	1-786-805-11	SWITCH, TACTILE (WITH LED) (SEL)			(EXCEPT SW330)
LSW905	1-786-806-11	SWITCH, TACTILE (WITH LED) (SEL) (SW330)			
LSW906	1-786-800-11	SWITCH, TACTILE (WITH LED) (VOL +)			(EXCEPT SW330)
LSW906	1-786-801-11	SWITCH, TACTILE (WITH LED) (VOL +) (SW330)			
LSW907	1-786-805-11	SWITCH, TACTILE (WITH LED) (MODE)			(EXCEPT SW330)
LSW907	1-786-806-11	SWITCH, TACTILE (WITH LED) (MODE) (SW330)			
LSW908	1-786-805-11	SWITCH, TACTILE (WITH LED) (ATT)			(EXCEPT SW330)
LSW908	1-786-806-11	SWITCH, TACTILE (WITH LED) (ATT) (SW330)			
LSW909	1-786-805-11	SWITCH, TACTILE (WITH LED) (EQ3)			(EXCEPT SW330)
LSW909	1-786-806-11	SWITCH, TACTILE (WITH LED) (EQ3) (SW330)			
LSW910	1-786-800-11	SWITCH, TACTILE (WITH LED) (SEEK +/▶▶I ▶▶)			(EXCEPT SW330)
LSW910	1-786-801-11	SWITCH, TACTILE (WITH LED) (SEEK +/▶▶I ▶▶)			(SW330)
LSW911	1-786-800-11	SWITCH, TACTILE (WITH LED) (SEEK -/◀◀ I◀◀)			(EXCEPT SW330)
LSW911	1-786-801-11	SWITCH, TACTILE (WITH LED) (SEEK -/◀◀ I◀◀)			(SW330)
LSW913	1-786-805-11	SWITCH, TACTILE (WITH LED) (BTM)			(EXCEPT SW330)
LSW913	1-786-806-11	SWITCH, TACTILE (WITH LED) (BTM) (SW330)			
LSW914	1-786-805-11	SWITCH, TACTILE (WITH LED) (6)			(EXCEPT SW330)

KEY

Ref. No.	Part No.	Description			Remark
LSW914	1-786-806-11	SWITCH, TACTILE (WITH LED) (6) (SW330)			
LSW915	1-786-805-11	SWITCH, TACTILE (WITH LED) (5)			(EXCEPT SW330)
LSW915	1-786-806-11	SWITCH, TACTILE (WITH LED) (5) (SW330)			
LSW916	1-786-805-11	SWITCH, TACTILE (WITH LED) (4/SHUF)			(EXCEPT SW330)
LSW916	1-786-806-11	SWITCH, TACTILE (WITH LED) (4/SHUF)			(SW330)
LSW917	1-786-805-11	SWITCH, TACTILE (WITH LED) (3/REP)			(EXCEPT SW330)
LSW917	1-786-806-11	SWITCH, TACTILE (WITH LED) (3/REP) (SW330)			
LSW918	1-786-805-11	SWITCH, TACTILE (WITH LED) (2/GROUP +)			(EXCEPT SW330)
LSW918	1-786-806-11	SWITCH, TACTILE (WITH LED) (2/GROUP +)			(SW330)
LSW919	1-786-805-11	SWITCH, TACTILE (WITH LED) (1/GROUP -)			(EXCEPT SW330)
LSW919	1-786-806-11	SWITCH, TACTILE (WITH LED) (1/GROUP -)			(SW330)
LSW920	1-786-805-11	SWITCH, TACTILE (WITH LED) (SENS)			(EXCEPT SW330)
LSW920	1-786-806-11	SWITCH, TACTILE (WITH LED) (SENS) (SW330)			
LSW921	1-786-805-11	SWITCH, TACTILE (WITH LED) (DSPL/DIM)			(EXCEPT SW330)
LSW921	1-786-806-11	SWITCH, TACTILE (WITH LED) (DSPL/DIM)			(SW330)
		< TRANSISTOR >			
Q921	8-729-027-58	TRANSISTOR DTC143ZKA-T146			
		< RESISTOR >			
R901	1-216-819-11	METAL CHIP	680	5%	1/10W
R902	1-216-819-11	METAL CHIP	680	5%	1/10W
R903	1-216-819-11	METAL CHIP	680	5%	1/10W
R904	1-216-821-11	METAL CHIP	1K	5%	1/10W
R905	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R906	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R907	1-216-819-11	METAL CHIP	680	5%	1/10W
R908	1-216-819-11	METAL CHIP	680	5%	1/10W
R909	1-216-819-11	METAL CHIP	680	5%	1/10W
R910	1-216-821-11	METAL CHIP	1K	5%	1/10W
R911	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R912	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R913	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R914	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R915	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R916	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R917	1-216-833-11	METAL CHIP	10K	5%	1/10W
R918	1-216-835-11	METAL CHIP	15K	5%	1/10W
R919	1-216-837-11	METAL CHIP	22K	5%	1/10W
R921	1-216-811-11	METAL CHIP	150	5%	1/10W (SW330)
R921	1-216-813-11	METAL CHIP	220	5%	1/10W (EXCEPT SW330)
R922	1-216-811-11	METAL CHIP	150	5%	1/10W
R925	1-216-807-11	METAL CHIP	68	5%	1/10W (SW330)
R925	1-216-809-11	METAL CHIP	100	5%	1/10W (EXCEPT SW330)
R926	1-216-807-11	METAL CHIP	68	5%	1/10W
R929	1-216-807-11	METAL CHIP	68	5%	1/10W (SW330)
R929	1-216-809-11	METAL CHIP	100	5%	1/10W (EXCEPT SW330)
R930	1-216-807-11	METAL CHIP	68	5%	1/10W
R933	1-216-811-11	METAL CHIP	150	5%	1/10W
R935	1-216-807-11	METAL CHIP	68	5%	1/10W (SW330)
R935	1-216-809-11	METAL CHIP	100	5%	1/10W (EXCEPT SW330)
R936	1-216-805-11	METAL CHIP	47	5%	1/10W (SW330)
R936	1-216-807-11	METAL CHIP	68	5%	1/10W (EXCEPT SW330)
R939	1-216-809-11	METAL CHIP	100	5%	1/10W (EXCEPT SW330)
R939	1-216-810-11	METAL CHIP	120	5%	1/10W (SW330)
R940	1-216-807-11	METAL CHIP	68	5%	1/10W (SW330)
R940	1-216-809-11	METAL CHIP	100	5%	1/10W (EXCEPT SW330)
R943	1-216-807-11	METAL CHIP	68	5%	1/10W (SW330)
R943	1-216-809-11	METAL CHIP	100	5%	1/10W (EXCEPT SW330)
R944	1-216-805-11	METAL CHIP	47	5%	1/10W (SW330)
R944	1-216-807-11	METAL CHIP	68	5%	1/10W (EXCEPT SW330)
R947	1-216-807-11	METAL CHIP	68	5%	1/10W (SW330)
R947	1-216-809-11	METAL CHIP	100	5%	1/10W (EXCEPT SW330)
R948	1-216-805-11	METAL CHIP	47	5%	1/10W (SW330)
R948	1-216-807-11	METAL CHIP	68	5%	1/10W (EXCEPT SW330)
R951	1-216-807-11	METAL CHIP	68	5%	1/10W (SW330)
R951	1-216-809-11	METAL CHIP	100	5%	1/10W (EXCEPT SW330)
R952	1-216-807-11	METAL CHIP	68	5%	1/10W
R955	1-216-811-11	METAL CHIP	150	5%	1/10W (SW330)
R955	1-216-813-11	METAL CHIP	220	5%	1/10W (EXCEPT SW330)
R956	1-216-811-11	METAL CHIP	150	5%	1/10W
R957	1-216-811-11	METAL CHIP	150	5%	1/10W
R961	1-216-805-11	METAL CHIP	47	5%	1/10W
R962	1-216-805-11	METAL CHIP	47	5%	1/10W
R963	1-216-803-11	METAL CHIP	33	5%	1/10W
R967	1-216-815-11	METAL CHIP	330	5%	1/10W
R968	1-216-804-11	METAL CHIP	39	5%	1/10W (SW330)
R968	1-216-808-11	METAL CHIP	82	5%	1/10W (EXCEPT SW330)
R972	1-216-809-11	METAL CHIP	100	5%	1/10W
R973	1-216-864-11	SHORT CHIP	0		
R974	1-216-864-11	SHORT CHIP	0		
R976	1-216-864-11	SHORT CHIP	0		

Ref. No.	Part No.	Description			Remark
R977	1-216-809-11	METAL CHIP	100	5%	1/10W
R978	1-216-809-11	METAL CHIP	100	5%	1/10W
R979	1-216-809-11	METAL CHIP	100	5%	1/10W
R981	1-216-811-11	METAL CHIP	150	5%	1/10W
R982	1-216-811-11	METAL CHIP	150	5%	1/10W
R983	1-216-864-11	SHORT CHIP	0		
R984	1-216-821-11	METAL CHIP	1K	5%	1/10W
R985	1-216-821-11	METAL CHIP	1K	5%	1/10W
R986	1-216-821-11	METAL CHIP	1K	5%	1/10W
R987	1-216-857-11	METAL CHIP	1M	5%	1/10W
R995	1-216-864-11	SHORT CHIP	0		
**********					
	A-1083-385-A	MAIN BOARD, COMPLETE (S2210/SW330)			
	A-1083-453-A	MAIN BOARD, COMPLETE (S2210S/S2210X)			
	A-1083-614-A	MAIN BOARD, COMPLETE (S2250EE)			
		**********			
	7-621-284-40	+P 2.6X10			
	7-685-134-19	SCREW +P 2.6X8 TYPE2 NON-SLIT			
	7-685-793-09	SCREW +PTT 2.6X8 (S)			
	7-685-795-09	SCREW +PTT 2.6X12 (S)			
		< CAPACITOR >			
C4	1-126-947-11	ELECT	47uF	20%	35V
C5	1-126-947-11	ELECT	47uF	20%	35V
C6	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C7	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C11	1-164-816-11	CERAMIC CHIP	220PF	2%	50V
C12	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C13	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C301	1-128-551-11	ELECT	22uF	20%	63V
C302	1-104-665-11	ELECT	100uF	20%	25V
C305	1-104-665-11	ELECT	100uF	20%	25V
C306	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C308	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C309	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C310	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C312	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C343	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C401	1-126-964-11	ELECT	10uF	20%	50V
C404	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C405	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C406	1-126-960-11	ELECT	1uF	20%	50V
C407	1-126-960-11	ELECT	1uF	20%	50V
C412	1-104-665-11	ELECT	100uF	20%	25V
C413	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C431	1-126-964-11	ELECT	10uF	20%	50V
C432	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C441	1-126-964-11	ELECT	10uF	20%	50V
C442	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C451	1-126-964-11	ELECT	10uF	20%	50V
C452	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C461	1-126-964-11	ELECT	10uF	20%	50V
C462	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C471	1-126-964-11	ELECT	10uF	20%	50V
C474	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C479	1-126-947-11	ELECT	47uF	20%	35V
C481	1-126-964-11	ELECT	10uF	20%	50V

Ref. No.	Part No.	Description			Remark
C484	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C501	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C502	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C503	1-104-665-11	ELECT	100uF	20%	25V
C504	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C507	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C508	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C509	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C510	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C511	1-104-665-11	ELECT	100uF	20%	25V
C512	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C513	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C514	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C516	1-216-864-11	SHORT CHIP	0		
C519	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
☆ C531	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C601	1-131-868-81	ELECT	3300uF	20%	16V
C602	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C617	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C618	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C622	1-126-916-11	ELECT	1000uF	20%	6.3V
C623	1-126-916-11	ELECT	1000uF	20%	6.3V
C631	1-126-960-11	ELECT	1uF	20%	50V
C750	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C751	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C752	1-126-947-11	ELECT	47uF	20%	35V
C753	1-128-551-11	ELECT	22uF	20%	63V
C754	1-126-961-11	ELECT	2.2uF	20%	50V
C755	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C756	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C758	1-126-964-11	ELECT	10uF	20%	50V
C759	1-126-964-11	ELECT	10uF	20%	50V
C760	1-104-665-11	ELECT	100uF	20%	25V
C761	1-126-964-11	ELECT	10uF	20%	50V
C763	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C764	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C765	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C769	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C770	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C771	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C774	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C775	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C776	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
		< CONNECTOR >			
CN601	1-774-701-21	PIN, CONNECTOR 16P			
CN701	1-794-311-21	PLUG, CONNECTOR 12P			
CNP301	1-817-536-11	CONNECTOR, BOARD TO BOARD 28P			
		< DIODE >			
D1	8-719-069-55	DIODE	UDZSTE-175.6B		
D479	8-719-988-61	DIODE	1SS355TE-17		
D502	8-719-060-48	DIODE	RB751V-40TE-17		
D503	8-719-988-61	DIODE	1SS355TE-17		
D510	6-501-013-01	DIODE	BAT54ALT1G		
D511	8-719-040-04	DIODE	MA721WK-(TX)		
D512	8-719-040-04	DIODE	MA721WK-(TX)		
D580	8-719-056-84	DIODE	UDZ-TE-17-7.5B		

☆ Refer to page 20 for
NOTE FOR REPLACEMENT OF THE IC501

MAIN

Ref. No.	Part No.	Description	Remark
D581	8-719-083-66	DIODE UDZSTE-1718B	
D601	8-719-049-38	DIODE 1N5404TU	
D609	8-719-978-33	DIODE DTZ-TT11-6.8B	
D617	8-719-083-66	DIODE UDZSTE-1718B	
D651	8-719-083-66	DIODE UDZSTE-1718B (S2250EE)	
D701	6-500-886-01	DIODE RSA6.1ENTR	
D702	6-500-886-01	DIODE RSA6.1ENTR	
D719	8-719-083-66	DIODE UDZSTE-1718B	
D751	6-500-522-01	DIODE 10EDB40-TA1B2	
D752	6-500-522-01	DIODE 10EDB40-TA1B2	
D753	6-500-522-01	DIODE 10EDB40-TA1B2	
D754	6-500-522-01	DIODE 10EDB40-TA1B2	
D755	6-500-522-01	DIODE 10EDB40-TA1B2	
D756	6-500-522-01	DIODE 10EDB40-TA1B2	
D757	6-500-522-01	DIODE 10EDB40-TA1B2	
D758	6-500-522-01	DIODE 10EDB40-TA1B2	
D759	6-500-522-01	DIODE 10EDB40-TA1B2	
D760	6-500-522-01	DIODE 10EDB40-TA1B2	
D761	6-500-522-01	DIODE 10EDB40-TA1B2	
D762	6-500-522-01	DIODE 10EDB40-TA1B2	
D763	8-719-988-61	DIODE 1SS355TE-17	
D764	8-719-988-61	DIODE 1SS355TE-17	
		< FERRITE BEAD >	
FB1	1-469-844-11	INDUCTOR 2.2uH	
FB302	1-216-864-11	SHORT CHIP 0	
FB303	1-469-876-11	INDUCTOR, FERRITE BEAD	
FB304	1-216-295-11	SHORT CHIP 0	
FB305	1-500-245-11	INDUCTOR, FERRITE BEAD	
FB307	1-216-864-11	SHORT CHIP 0	
FB308	1-500-245-11	INDUCTOR, FERRITE BEAD	
FB309	1-216-864-11	SHORT CHIP 0	
FB310	1-216-864-11	SHORT CHIP 0	
FB501	1-500-245-11	INDUCTOR, FERRITE BEAD	
FB603	1-216-295-11	SHORT CHIP 0	
FB604	1-216-295-11	SHORT CHIP 0	
FB605	1-216-864-11	SHORT CHIP 0	
FB606	1-414-595-11	INDUCTOR, FERRITE BEAD	
		< IC >	
IC401	6-705-372-01	IC BD3808FS-FE2	
☆ IC501	6-804-912-01	IC MB90487APF-G-118-BND1	
IC602	8-759-659-13	IC PST3428UL	
IC750	6-705-360-02	IC TDA8588BJ/N2/R1	
		< JACK >	
J1	1-815-185-13	JACK (ANTENNA)	
J330	1-774-698-11	JACK, PIN 2P (AUDIO OUT)	
		< JUMPER RESISTOR >	
JC1	1-216-864-11	SHORT CHIP 0	
JC12	1-216-864-11	SHORT CHIP 0	
JC401	1-216-864-11	SHORT CHIP 0	
JC445	1-216-296-11	SHORT CHIP 0	
JC446	1-216-864-11	SHORT CHIP 0	
JC501	1-216-296-11	SHORT CHIP 0	
JC503	1-216-296-11	SHORT CHIP 0	
JC504	1-216-864-11	SHORT CHIP 0	
JC506	1-216-864-11	SHORT CHIP 0	
JC511	1-216-296-11	SHORT CHIP 0	
JC527	1-216-821-11	METAL CHIP 1K 5% 1/10W	
JC533	1-216-864-11	SHORT CHIP 0	
JC581	1-216-296-11	SHORT CHIP 0	
JC681	1-216-864-11	SHORT CHIP 0	
JC753	1-216-296-11	SHORT CHIP 0	
JC754	1-216-296-11	SHORT CHIP 0	
JC755	1-216-296-11	SHORT CHIP 0	
JC756	1-216-864-11	SHORT CHIP 0	
		< COIL >	
L1	1-469-844-11	INDUCTOR 2.2uH	
L301	1-469-844-11	INDUCTOR 2.2uH	
L501	1-500-245-11	INDUCTOR, FERRITE BEAD	
L601	1-456-617-11	COIL, CHOKE	
		< TRANSISTOR >	
Q1	8-729-106-68	TRANSISTOR 2SD1615A-GP	
Q431	6-550-752-01	TRANSISTOR DTC614TKT146	
Q441	6-550-752-01	TRANSISTOR DTC614TKT146	
Q451	6-550-752-01	TRANSISTOR DTC614TKT146	
Q461	6-550-752-01	TRANSISTOR DTC614TKT146	
Q471	6-550-752-01	TRANSISTOR DTC614TKT146	
Q478	1-801-806-11	TRANSISTOR DTC144EKA	
Q479	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q481	6-550-752-01	TRANSISTOR DTC614TKT146	
Q580	8-729-027-43	TRANSISTOR DTC114EKA-T146	
Q581	1-801-806-11	TRANSISTOR DTC144EKA	
Q582	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q631	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q651	8-729-120-28	TRANSISTOR 2SC1623-L5L6 (S2250EE)	
Q664	8-729-027-23	TRANSISTOR DTA114EKA-T146	
		< RESISTOR >	
R1	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R2	1-414-595-11	INDUCTOR, FERRITE BEAD	
R3	1-414-595-11	INDUCTOR, FERRITE BEAD	
R4	1-216-839-11	METAL CHIP 33K 5% 1/10W	
R5	1-216-843-11	METAL CHIP 68K 5% 1/10W	
R12	1-216-864-11	SHORT CHIP 0	
R13	1-216-864-11	SHORT CHIP 0	
R301	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R302	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R401	1-216-797-11	METAL CHIP 10 5% 1/10W	
R405	1-218-881-11	METAL CHIP 27K 0.5% 1/10W	
R406	1-216-809-11	METAL CHIP 100 5% 1/10W	
R407	1-216-809-11	METAL CHIP 100 5% 1/10W	
R408	1-216-809-11	METAL CHIP 100 5% 1/10W	
R409	1-216-809-11	METAL CHIP 100 5% 1/10W	
R410	1-216-809-11	METAL CHIP 100 5% 1/10W	
R411	1-216-809-11	METAL CHIP 100 5% 1/10W	
R431	1-216-809-11	METAL CHIP 100 5% 1/10W	
R432	1-216-841-11	METAL CHIP 47K 5% 1/10W	
R433	1-216-864-11	SHORT CHIP 0	
R441	1-216-809-11	METAL CHIP 100 5% 1/10W	
R442	1-216-841-11	METAL CHIP 47K 5% 1/10W	
R443	1-216-864-11	SHORT CHIP 0	

☆ Refer to page 20 for
NOTE FOR REPLACEMENT OF THE IC501

Ref. No.	Part No.	Description			Remark
R451	1-216-809-11	METAL CHIP	100	5%	1/10W
R452	1-216-841-11	METAL CHIP	47K	5%	1/10W
R453	1-216-864-11	SHORT CHIP	0		
R461	1-216-809-11	METAL CHIP	100	5%	1/10W
R462	1-216-841-11	METAL CHIP	47K	5%	1/10W
R463	1-216-864-11	SHORT CHIP	0		
R471	1-216-809-11	METAL CHIP	100	5%	1/10W
R472	1-216-841-11	METAL CHIP	47K	5%	1/10W
R479	1-216-805-11	METAL CHIP	47	5%	1/10W
R481	1-216-809-11	METAL CHIP	100	5%	1/10W
R482	1-216-841-11	METAL CHIP	47K	5%	1/10W
R501	1-216-864-11	SHORT CHIP	0		
R502	1-216-809-11	METAL CHIP	100	5%	1/10W
R503	1-216-809-11	METAL CHIP	100	5%	1/10W
R504	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R505	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R507	1-216-845-11	METAL CHIP	100K	5%	1/10W (EXCEPT S2250EE)
R508	1-216-864-11	SHORT CHIP	0		
R509	1-216-811-11	METAL CHIP	150	5%	1/10W
R510	1-216-809-11	METAL CHIP	100	5%	1/10W
R511	1-216-809-11	METAL CHIP	100	5%	1/10W
R512	1-216-809-11	METAL CHIP	100	5%	1/10W
R513	1-216-845-11	METAL CHIP	100K	5%	1/10W
R514	1-216-845-11	METAL CHIP	100K	5%	1/10W
R517	1-216-841-11	METAL CHIP	47K	5%	1/10W
R518	1-216-864-11	SHORT CHIP	0		
R519	1-216-845-11	METAL CHIP	100K	5%	1/10W
R521	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R522	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R528	1-216-845-11	METAL CHIP	100K	5%	1/10W
R529	1-216-809-11	METAL CHIP	100	5%	1/10W
R531	1-216-845-11	METAL CHIP	100K	5%	1/10W
R532	1-216-845-11	METAL CHIP	100K	5%	1/10W
R533	1-216-845-11	METAL CHIP	100K	5%	1/10W
R534	1-216-833-11	METAL CHIP	10K	5%	1/10W
R535	1-216-833-11	METAL CHIP	10K	5%	1/10W
R536	1-216-845-11	METAL CHIP	100K	5%	1/10W
R537	1-216-845-11	METAL CHIP	100K	5%	1/10W (S2210S/S2210X)
R538	1-216-845-11	METAL CHIP	100K	5%	1/10W (S2210/S2250EE/SW330)
R539	1-216-821-11	METAL CHIP	1K	5%	1/10W
R540	1-216-845-11	METAL CHIP	100K	5%	1/10W
R541	1-216-845-11	METAL CHIP	100K	5%	1/10W
R542	1-216-821-11	METAL CHIP	1K	5%	1/10W
R543	1-216-821-11	METAL CHIP	1K	5%	1/10W
R544	1-216-821-11	METAL CHIP	1K	5%	1/10W
R545	1-216-845-11	METAL CHIP	100K	5%	1/10W (S2210S/S2210X)
R546	1-216-845-11	METAL CHIP	100K	5%	1/10W (S2210S/S2210X)
R547	1-216-864-11	SHORT CHIP	0		
R549	1-216-845-11	METAL CHIP	100K	5%	1/10W (S2250EE)
R550	1-216-845-11	METAL CHIP	100K	5%	1/10W
R551	1-216-845-11	METAL CHIP	100K	5%	1/10W (S2210/SW330)
R556	1-216-833-11	METAL CHIP	10K	5%	1/10W (EXCEPT S2250EE)
R557	1-216-809-11	METAL CHIP	100	5%	1/10W
R558	1-216-821-11	METAL CHIP	1K	5%	1/10W
R561	1-216-845-11	METAL CHIP	100K	5%	1/10W
R563	1-216-845-11	METAL CHIP	100K	5%	1/10W
R564	1-216-845-11	METAL CHIP	100K	5%	1/10W (S2250EE)
R565	1-216-845-11	METAL CHIP	100K	5%	1/10W
R566	1-216-845-11	METAL CHIP	100K	5%	1/10W
R567	1-216-845-11	METAL CHIP	100K	5%	1/10W
R568	1-216-821-11	METAL CHIP	1K	5%	1/10W
R570	1-216-817-11	METAL CHIP	470	5%	1/10W
R573	1-216-845-11	METAL CHIP	100K	5%	1/10W (S2250EE)
R575	1-216-845-11	METAL CHIP	100K	5%	1/10W
R577	1-216-845-11	METAL CHIP	100K	5%	1/10W
R578	1-216-821-11	METAL CHIP	1K	5%	1/10W
R582	1-216-821-11	METAL CHIP	1K	5%	1/10W
R583	1-216-821-11	METAL CHIP	1K	5%	1/10W
R584	1-216-841-11	METAL CHIP	47K	5%	1/10W
R585	1-216-849-11	METAL CHIP	220K	5%	1/10W
R601	1-216-845-11	METAL CHIP	100K	5%	1/10W
R609	1-216-821-11	METAL CHIP	1K	5%	1/10W
R631	1-249-425-11	CARBON	4.7K	5%	1/4W
R632	1-216-841-11	METAL CHIP	47K	5%	1/10W
R633	1-216-841-11	METAL CHIP	47K	5%	1/10W
R634	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R636	1-216-845-11	METAL CHIP	100K	5%	1/10W
R651	1-216-821-11	METAL CHIP	1K	5%	1/10W (S2250EE)
R652	1-216-841-11	METAL CHIP	47K	5%	1/10W (S2250EE)
R653	1-216-833-11	METAL CHIP	10K	5%	1/10W (S2250EE)
R654	1-216-833-11	METAL CHIP	10K	5%	1/10W (S2250EE)
R671	1-216-809-11	METAL CHIP	100	5%	1/10W
R672	1-216-809-11	METAL CHIP	100	5%	1/10W
R673	1-216-833-11	METAL CHIP	10K	5%	1/10W
R674	1-216-845-11	METAL CHIP	100K	5%	1/10W
R675	1-216-821-11	METAL CHIP	1K	5%	1/10W
R676	1-216-821-11	METAL CHIP	1K	5%	1/10W
R677	1-216-821-11	METAL CHIP	1K	5%	1/10W
R679	1-216-821-11	METAL CHIP	1K	5%	1/10W
R681	1-216-864-11	SHORT CHIP	0		
R703	1-216-864-11	SHORT CHIP	0		
R705	1-216-809-11	METAL CHIP	100	5%	1/10W
R706	1-216-864-11	SHORT CHIP	0		
R707	1-216-864-11	SHORT CHIP	0		
R752	1-216-811-11	METAL CHIP	150	5%	1/10W
R756	1-216-841-11	METAL CHIP	47K	5%	1/10W

< SWITCH >

S502	1-571-478-11	SWITCH, SLIDE (FREQUENCY SELECT)	(S2210S/S2210X)
S702	1-786-826-11	SWITCH, TACTILE (RESET)	

MAIN **SENSOR** **SERVO**

Ref. No.	Part No.	Description			Remark
		< TUNER >			
TU1	A-3220-961-A	TUNER UNIT (TUX-032)			
		< VIBRATOR >			
X501	1-813-524-21	VIBRATOR, CERAMIC (18.432MHz)			
X502	1-813-202-11	VIBRATOR, CRYSTAL (32.768kHz)			
**********					
		SENSOR BOARD			
		**********			
		< SWITCH >			
SW2	1-529-566-61	SWITCH, PUSH (1 KEY) (SELF)			
SW3	1-529-566-61	SWITCH, PUSH (1 KEY) (DISC IN)			
**********					
	A-1075-784-A	SERVO BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C4	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C5	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C6	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C7	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C9	1-104-609-11	ELECT CHIP	100uF	20%	4V
C10	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C13	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C16	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C17	1-162-925-11	CERAMIC CHIP	68PF	5%	50V
C18	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C19	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C20	1-164-245-11	CERAMIC CHIP	0.015uF	10%	25V
C21	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C22	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C23	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C24	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C27	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C28	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C29	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C31	1-164-245-11	CERAMIC CHIP	0.015uF	10%	25V
C32	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C33	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C34	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C35	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C36	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C37	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C38	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C39	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C40	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C41	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C42	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C43	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C45	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C47	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C48	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C49	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C51	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C52	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V

Ref. No.	Part No.	Description			Remark
C53	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C57	1-115-416-11	CERAMIC CHIP	0.001uF	5%	25V
C58	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C59	1-112-195-11	ELECT	47uF	20%	4V
C60	1-112-195-11	ELECT	47uF	20%	4V
C61	1-126-208-21	ELECT CHIP	47uF	20%	4V
C62	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C64	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C65	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C67	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C72	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C80	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C101	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C102	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C103	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C105	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C106	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
		< CONNECTOR >			
CN1	1-691-380-21	CONNECTOR, FFC/FPC 16P			
CN2	1-817-275-21	CONNECTOR, BOARD TO BOARD 28P			
		< JUMPER RESISTOR >			
FB2	1-216-864-11	SHORT CHIP	0		
FB3	1-216-864-11	SHORT CHIP	0		
FB4	1-216-864-11	SHORT CHIP	0		
		< IC >			
IC1	6-707-327-01	IC BA5968FP-E2			
IC2	6-707-328-01	IC TC94A60MFG-301			
IC3	6-805-086-01	IC MB90487APFV-G-131-BNDE1			
IC6	6-705-364-01	IC R1114N151D-TR-FA			
		< TRANSISTOR >			
Q1	8-729-904-87	TRANSISTOR 2SB1197K-R			
Q2	8-729-904-87	TRANSISTOR 2SB1197K-R			
Q3	8-729-928-90	TRANSISTOR DTC114EE			
		< RESISTOR >			
R1	1-218-941-81	RES-CHIP	100	5%	1/16W
R2	1-208-699-11	METAL CHIP	4.7K	0.5%	1/16W
R3	1-208-912-11	METAL CHIP	11K	0.5%	1/16W
R4	1-218-969-11	RES-CHIP	22K	5%	1/16W
R5	1-218-969-11	RES-CHIP	22K	5%	1/16W
R6	1-218-929-11	RES-CHIP	10	5%	1/16W
R7	1-218-929-11	RES-CHIP	10	5%	1/16W
R8	1-218-967-11	RES-CHIP	15K	5%	1/16W
R9	1-218-967-11	RES-CHIP	15K	5%	1/16W
R10	1-218-965-11	RES-CHIP	10K	5%	1/16W
R11	1-218-965-11	RES-CHIP	10K	5%	1/16W
R12	1-218-977-11	RES-CHIP	100K	5%	1/16W
R13	1-218-969-11	RES-CHIP	22K	5%	1/16W
R16	1-218-967-11	RES-CHIP	15K	5%	1/16W
R17	1-218-973-11	RES-CHIP	47K	5%	1/16W
R19	1-218-967-11	RES-CHIP	15K	5%	1/16W
R21	1-218-973-11	RES-CHIP	47K	5%	1/16W
R22	1-218-990-11	SHORT CHIP	0		
R23	1-218-979-11	RES-CHIP	150K	5%	1/16W

SERVO

Ref. No.	Part No.	Description			Remark
R24	1-218-962-11	RES-CHIP	5.6K	5%	1/16W
R25	1-218-990-11	SHORT CHIP	0		
R26	1-218-941-81	RES-CHIP	100	5%	1/16W
R28	1-218-947-11	RES-CHIP	330	5%	1/16W
R40	1-218-941-81	RES-CHIP	100	5%	1/16W
R41	1-218-977-11	RES-CHIP	100K	5%	1/16W
R42	1-218-977-11	RES-CHIP	100K	5%	1/16W
R43	1-218-941-81	RES-CHIP	100	5%	1/16W
R44	1-218-941-81	RES-CHIP	100	5%	1/16W
R45	1-218-989-11	RES-CHIP	1M	5%	1/16W
R46	1-218-947-11	RES-CHIP	330	5%	1/16W
R47	1-218-977-11	RES-CHIP	100K	5%	1/16W
R48	1-218-941-81	RES-CHIP	100	5%	1/16W
R49	1-218-941-81	RES-CHIP	100	5%	1/16W
R50	1-218-941-81	RES-CHIP	100	5%	1/16W
R51	1-218-941-81	RES-CHIP	100	5%	1/16W
R52	1-218-945-11	RES-CHIP	220	5%	1/16W
R53	1-218-941-81	RES-CHIP	100	5%	1/16W
R54	1-218-941-81	RES-CHIP	100	5%	1/16W
R55	1-218-977-11	RES-CHIP	100K	5%	1/16W
R56	1-218-941-81	RES-CHIP	100	5%	1/16W
R57	1-218-941-81	RES-CHIP	100	5%	1/16W
R58	1-218-941-81	RES-CHIP	100	5%	1/16W
R59	1-218-977-11	RES-CHIP	100K	5%	1/16W
R60	1-218-977-11	RES-CHIP	100K	5%	1/16W
R61	1-218-977-11	RES-CHIP	100K	5%	1/16W
R62	1-218-977-11	RES-CHIP	100K	5%	1/16W
R63	1-218-977-11	RES-CHIP	100K	5%	1/16W
R64	1-218-977-11	RES-CHIP	100K	5%	1/16W
R65	1-218-941-81	RES-CHIP	100	5%	1/16W
R66	1-218-941-81	RES-CHIP	100	5%	1/16W
R67	1-218-941-81	RES-CHIP	100	5%	1/16W
R68	1-218-941-81	RES-CHIP	100	5%	1/16W
R69	1-218-941-81	RES-CHIP	100	5%	1/16W
R70	1-218-941-81	RES-CHIP	100	5%	1/16W
R71	1-220-804-11	RES-CHIP	2.2M	5%	1/16W
R72	1-218-941-81	RES-CHIP	100	5%	1/16W
R73	1-218-973-11	RES-CHIP	47K	5%	1/16W
R74	1-218-941-81	RES-CHIP	100	5%	1/16W
R77	1-218-941-81	RES-CHIP	100	5%	1/16W
R78	1-218-941-81	RES-CHIP	100	5%	1/16W
R80	1-218-941-81	RES-CHIP	100	5%	1/16W
R81	1-218-973-11	RES-CHIP	47K	5%	1/16W
R82	1-218-973-11	RES-CHIP	47K	5%	1/16W
R83	1-218-973-11	RES-CHIP	47K	5%	1/16W
R84	1-218-953-11	RES-CHIP	1K	5%	1/16W
R86	1-218-969-11	RES-CHIP	22K	5%	1/16W
R90	1-218-941-81	RES-CHIP	100	5%	1/16W
R91	1-218-941-81	RES-CHIP	100	5%	1/16W
R100	1-220-200-81	RES-CHIP	30K	5%	1/16W
R101	1-218-971-11	RES-CHIP	33K	5%	1/16W
R112	1-218-990-11	SHORT CHIP	0		
R113	1-218-990-11	SHORT CHIP	0		
R116	1-218-977-11	RES-CHIP	100K	5%	1/16W
R117	1-218-977-11	RES-CHIP	100K	5%	1/16W
R118	1-218-977-11	RES-CHIP	100K	5%	1/16W
R119	1-218-977-11	RES-CHIP	100K	5%	1/16W
R120	1-218-990-11	SHORT CHIP	0		
R121	1-218-990-11	SHORT CHIP	0		
R122	1-218-990-11	SHORT CHIP	0		
R123	1-218-990-11	SHORT CHIP	0		
R125	1-218-941-81	RES-CHIP	100	5%	1/16W
R126	1-218-941-81	RES-CHIP	100	5%	1/16W
R127	1-218-941-81	RES-CHIP	100	5%	1/16W
R128	1-218-941-81	RES-CHIP	100	5%	1/16W
R131	1-216-864-11	SHORT CHIP	0		
R132	1-218-962-11	RES-CHIP	5.6K	5%	1/16W

< SWITCH >

SW1	1-529-565-61	SWITCH, PUSH (1 KEY) (DOWN)

< VIBRATOR >

X1	1-813-371-21	VIBRATOR, CERAMIC (12MHz)
X2	1-795-561-21	VIBRATOR, CERAMIC (16.9344MHz)

****

MISCELLANEOUS
****

6	1-776-206-21	CORD (WITH CONNECTOR) (POWER) (EXCEPT S2250EE)
6	1-776-527-61	CORD (WITH CONNECTOR) (ISO) (POWER) (S2250EE)
⚠153	8-820-207-12	OPTICAL PICK-UP (KSS1000E/K1RP)
154	A-1075-787-A	CHASSIS (OP) SUB ASSY (including M901)
F901	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A
M902	A-3337-638-A	MOTOR ASSY, SL (SLED)
M903	A-1075-792-A	MOTOR ASSY, LE (LOADING)
SW4	1-571-099-11	SWITCH (1 KEY) (LIMIT)

****

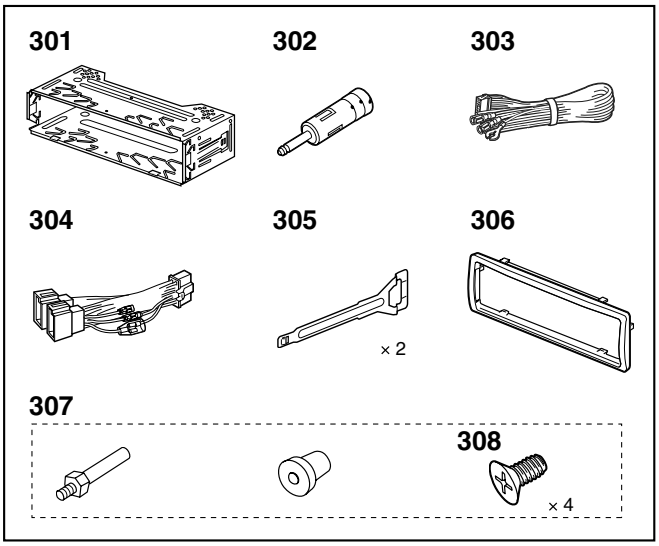
ACCESSORIES
****

	1-479-077-11	REMOTE COMMANDER (RM-X151) (S2210S/SW330)
	2-348-404-11	MANUAL, INSTRUCTION, INSTALL (ENGLISH,FRENCH) (S2210)
	2-348-404-31	MANUAL, INSTRUCTION, INSTALL (ENGLISH,RUSSIAN) (S2250EE)
	2-348-404-41	MANUAL, INSTRUCTION, INSTALL (ENGLISH,SPANISH,TRADITIONAL CHINESE) (S2210S/S2210X)
	2-348-404-51	MANUAL, INSTRUCTION, INSTALL (ENGLISH,SPANISH) (SW330)
	2-348-467-11	MANUAL, INSTRUCTION (ENGLISH,FRENCH) (S2210)
	2-348-467-31	MANUAL, INSTRUCTION (ENGLISH,RUSSIAN) (S2250EE)
	2-348-467-41	MANUAL, INSTRUCTION (ENGLISH,SPANISH,TRADITIONAL CHINESE) (S2210S/S2210X)
	2-348-467-51	MANUAL, INSTRUCTION (ENGLISH,SPANISH) (SW330)
	2-548-729-01	LID, BATTERY CASE (for RM-X151) (S2210S/SW330)
	X-2024-133-1	CASE ASSY (for FRONT PANEL)

****

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
		PARTS FOR INSTALLATION AND CONNECTIONS **********	
301	X-3382-647-1	FRAME ASSY, FITTING	
302	1-465-459-41	ADAPTOR, ANTENNA (S2250EE)	
303	1-776-206-21	CORD (WITH CONNECTOR) (POWER)	(EXCEPT S2250EE)
304	1-776-527-61	CORD (WITH CONNECTOR) (ISO) (POWER)	(S2250EE)
305	3-246-011-01	KEY (FRAME)	
306	2-187-743-01	COLLAR (S2210/S2210X/SW330)	
306	2-187-743-11	COLLAR (S2210S/S2250EE)	
307	A-1082-993-A	SCREW ASSY (BS4), FITTING	(S2210S/S2210X/S2250EE)
308	3-246-471-01	SCREW (+K 5X8 TP)	



CDX-S2210/S2210S/S2210X/ S2250EE/SW330

SONY

SERVICE MANUAL

Ver. 1.1 2005.05

US Model
CDX-S2210/SW330

Canadian Model
CDX-S2210

E Model
CDX-S2210S/S2210X

East European Model
CDX-S2250EE

SUPPLEMENT-1

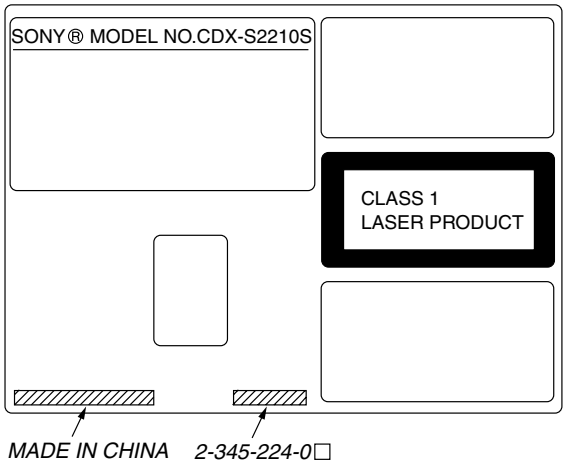
File this supplement with the service manual.

Subject : Production country change.

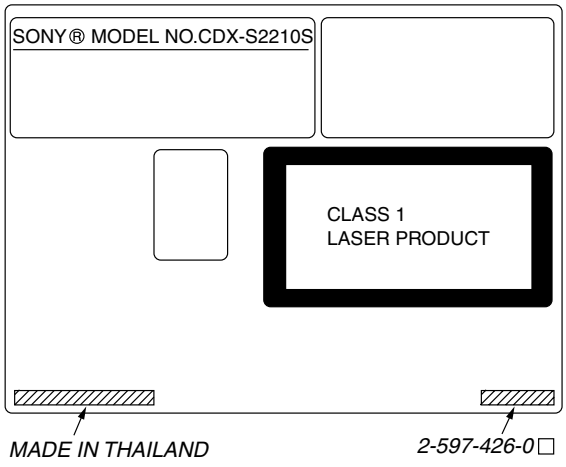
The CDX-S2210S and CDX-S2250EE models has been changed in the production country to Thailand from Chinese.
This service manual, SUPPLEMENT-1 only contains the change.
When servicing and inspecting, check the Model Number Label to see if the model is made in Thailand or Chinese.

DISCRIMINATION

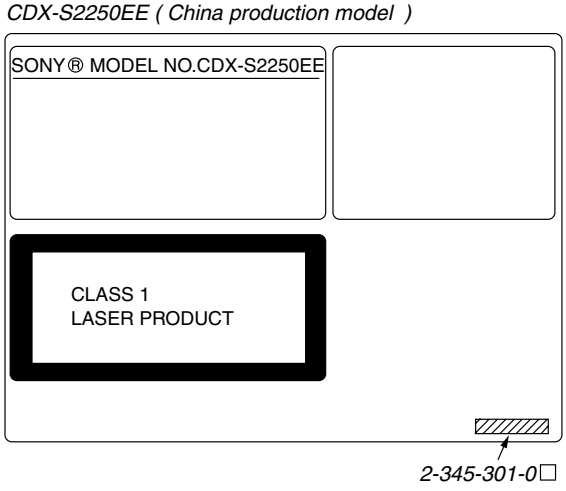
CDX-S2210S (China production model)



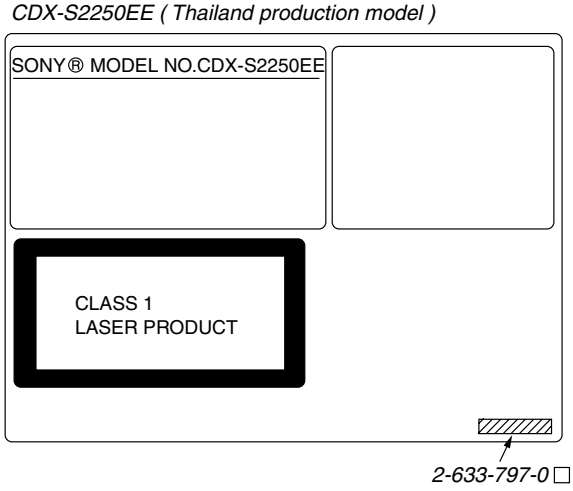
CDX-S2210S (Thailand production model)



CDX-S2250EE (China production model)



CDX-S2250EE (Thailand production model)



9-879-323-81

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SECTION 1
DIAGRAMS

• NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

For schematic diagrams.

Note:
- All capacitors are in µF unless otherwise noted. (p: pF) 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

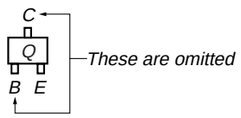
- ▬▬ : B+ Line.
- ▬ ▬ ▬ : B– Line.
- ▭ : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- CD mechanism (1/2), (2/2) sections
  no mark : CD PLAY
- Main (1/3), (2/3), (3/3) sections
  no mark : FM
  ( ) : AM
  < > : CD PLAY
  * : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : CD PLAY
  ⇨ : FM
  ➡ : AM

For printed wiring boards.

Note:
- o——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ○ : Through hole.
- ▬ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Side B)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A)	Parts on the parts face side seen from the parts face are indicated.



These are omitted

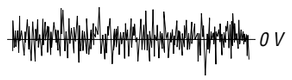
These are omitted

These are omitted

• WAVEFORMS

— SERVO BOARD —

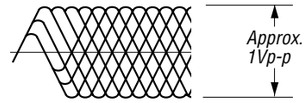
① IC2 ④ (FEI)



Approx. 100 mVp-p

50 mV/DIV, 5 msec/DIV

④ IC2 ⑰ (RFI)



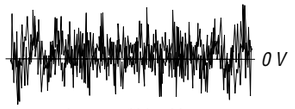
0.5 V/DIV, 0.5 µsec/DIV

⑦ IC3 ⑧① (X1)

12 MHz

0.5 V/DIV, 0.2 µsec/DIV

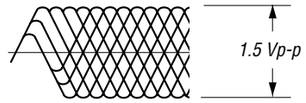
② IC2 ⑥ (TEI)



Approx. 400 mVp-p

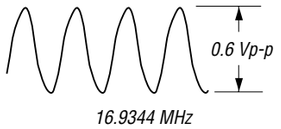
200 mV/DIV, 5 msec/DIV

⑤ IC2 ⑭ (FNI2), ⑮ (FNI1)



0.5 V/DIV, 0.5 µsec/DIV

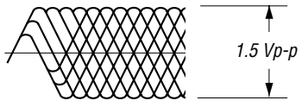
③ IC2 ㉓ (XI)



16.9344 MHz

0.2 V/DIV, 0.2 µsec/DIV

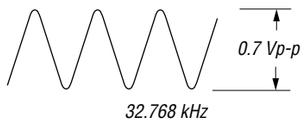
⑥ IC2 ⑯ (FPI2), ⑰ (FPI1)



0.5 V/DIV, 0.5 µsec/DIV

— MAIN BOARD —

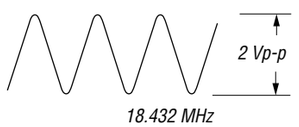
② IC501 ⑲ (XIN)



32.768 kHz

0.2 V/DIV, 20 µsec/DIV

③ IC501 ⑧③ (OSC IN)

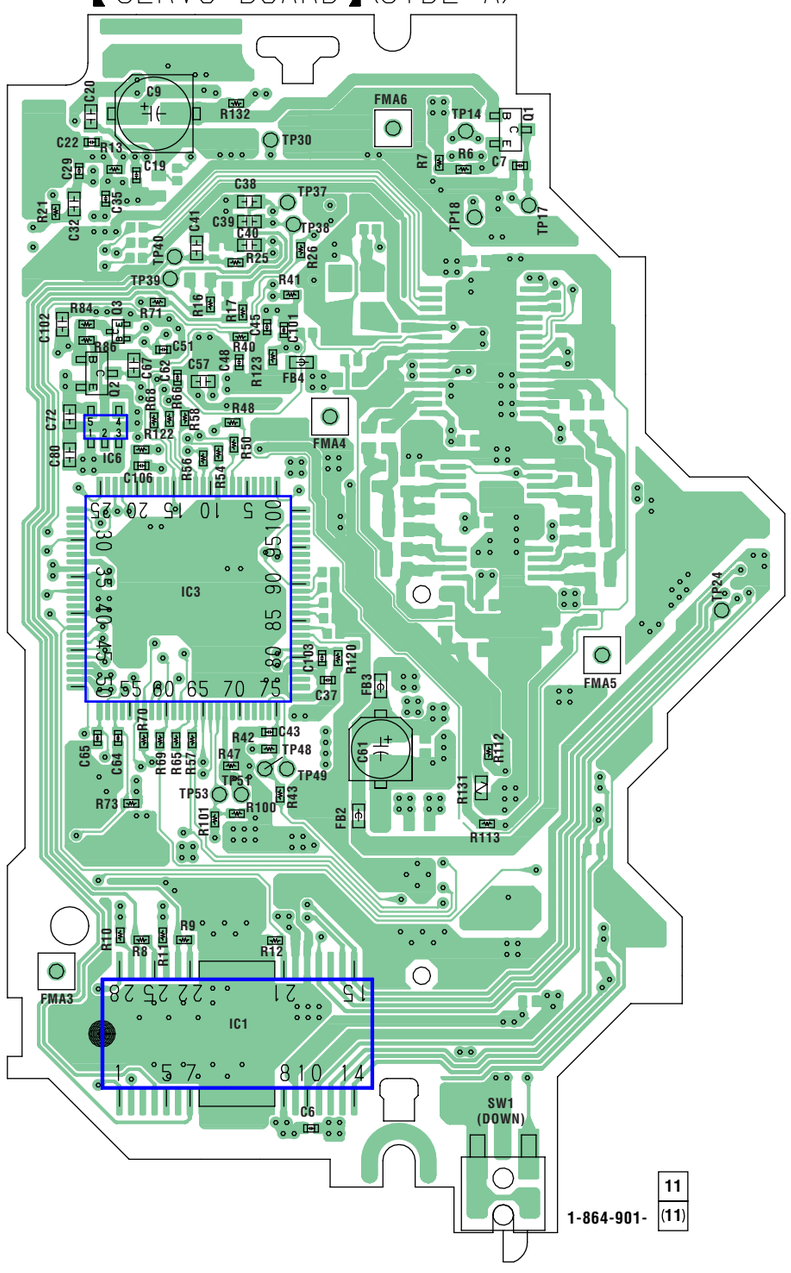


18.432 MHz

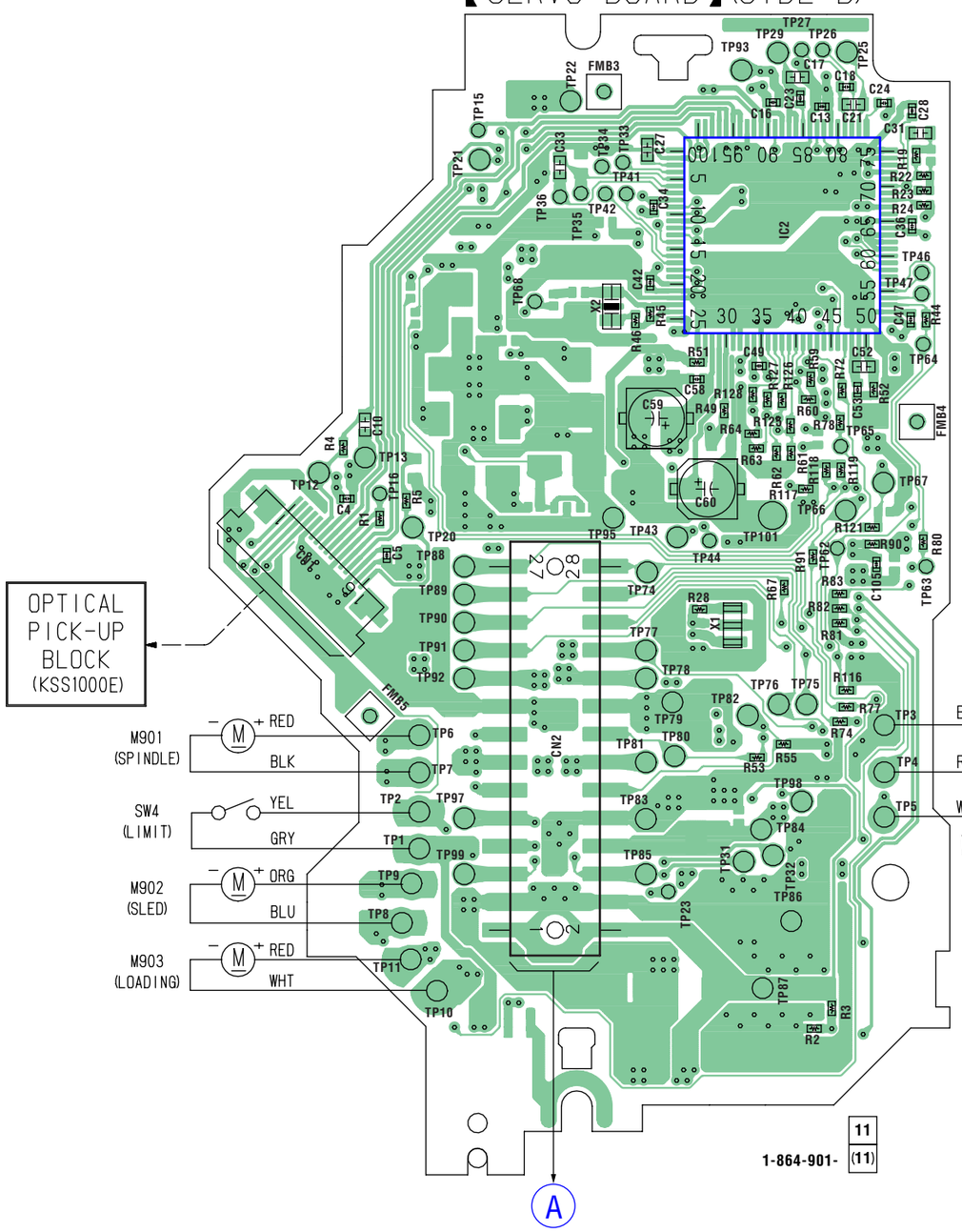
1 V/DIV, 0.1 µsec/DIV

1-1. PRINTED WIRING BOARDS — CD MECHANISM SECTION — : Uses unleaded solder.

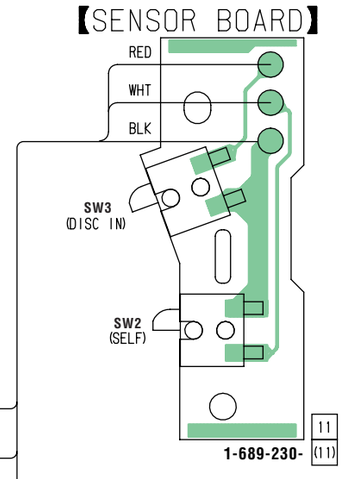
【SERVO BOARD】(SIDE A)



【SERVO BOARD】(SIDE B)



【SENSOR BOARD】

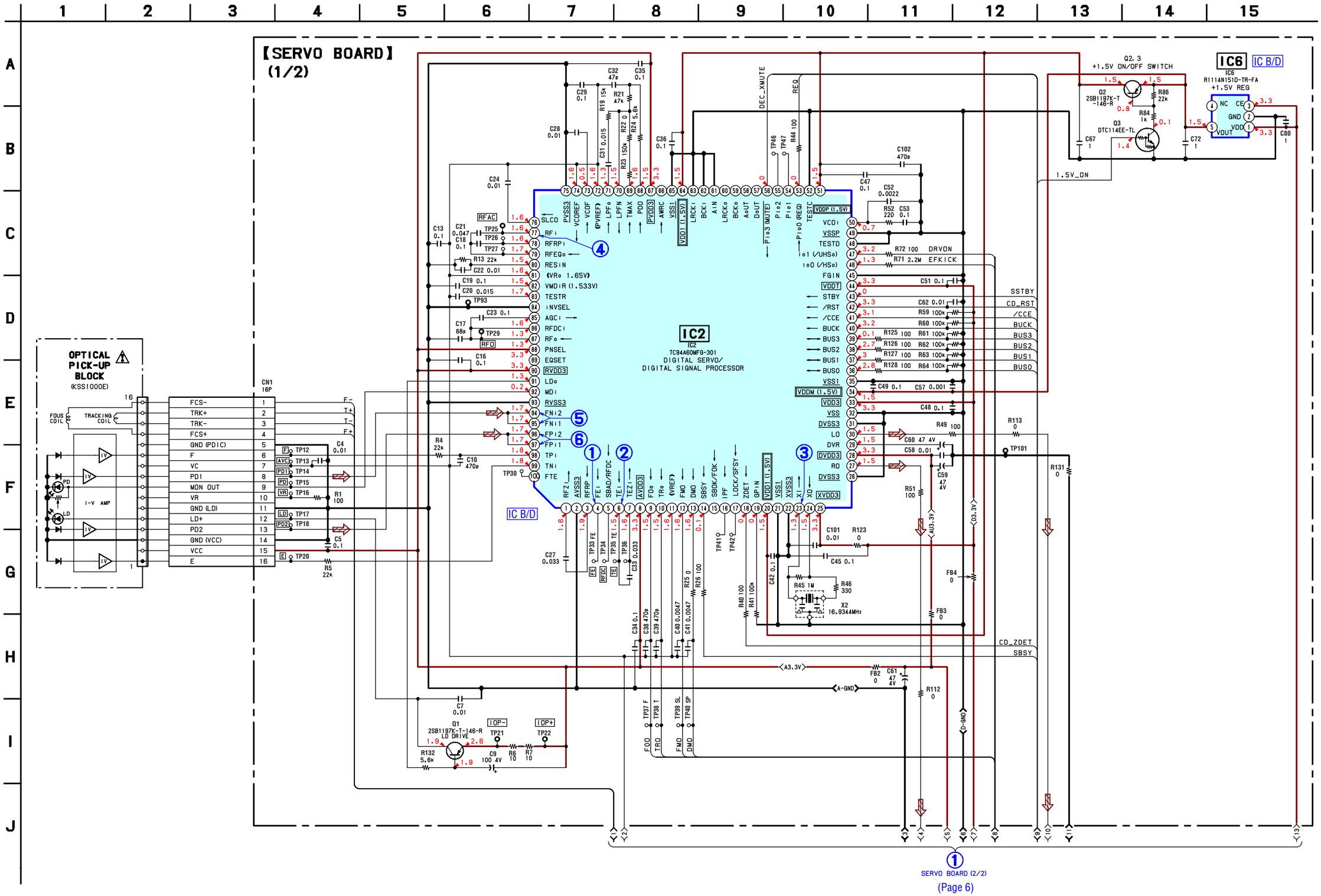


- **Semiconductor Location**

Ref. No.	Location
IC1	G-2
IC2	B-11
IC3	D-2
IC6	D-1
Q1	B-4
Q2	C-1
Q3	C-1

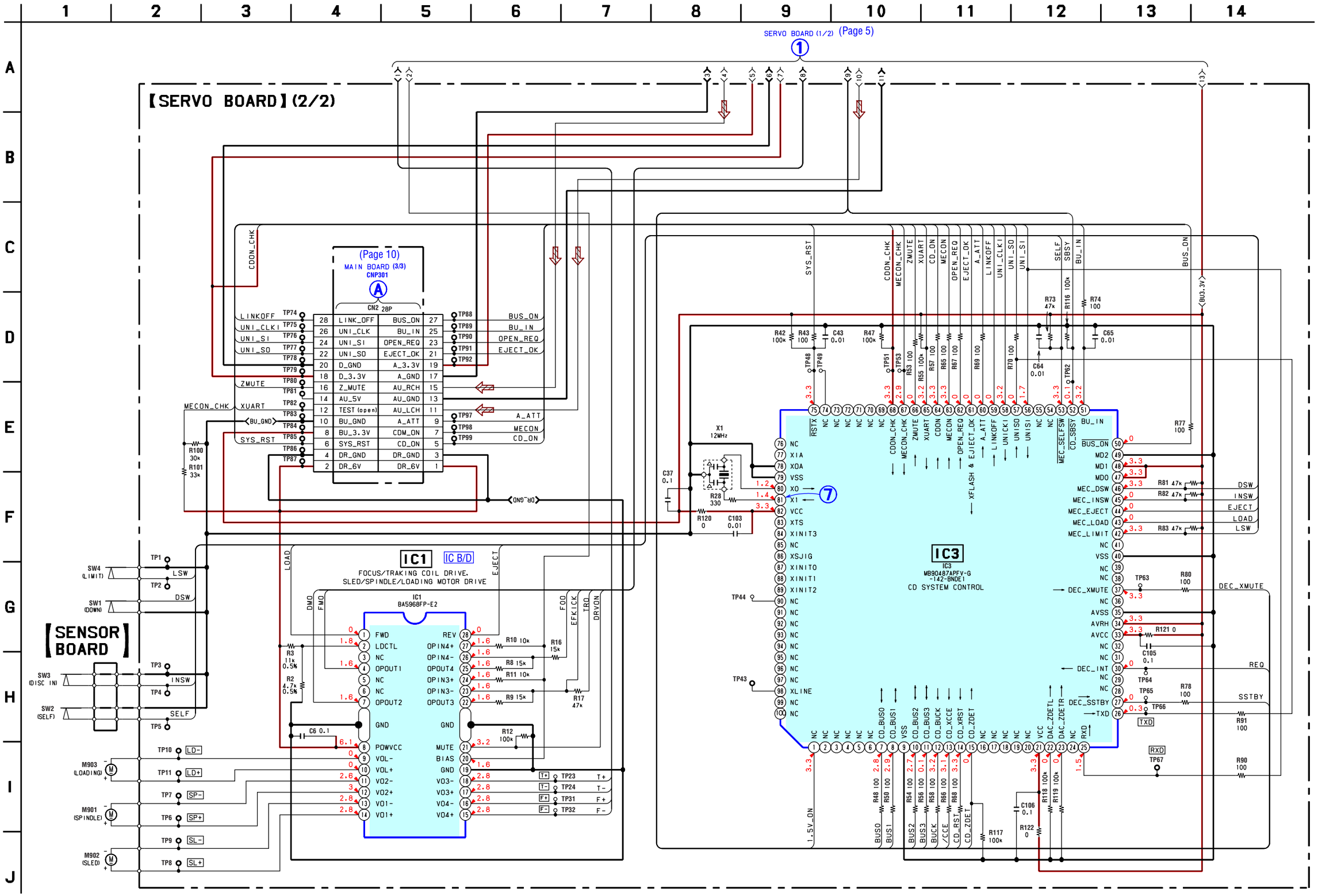
1-2. SCHEMATIC DIAGRAM — CD MECHANISM SECTION (1/2) —

• Refer to page 3 for Waveforms.
• Refer to page 11 for IC Block Diagrams.

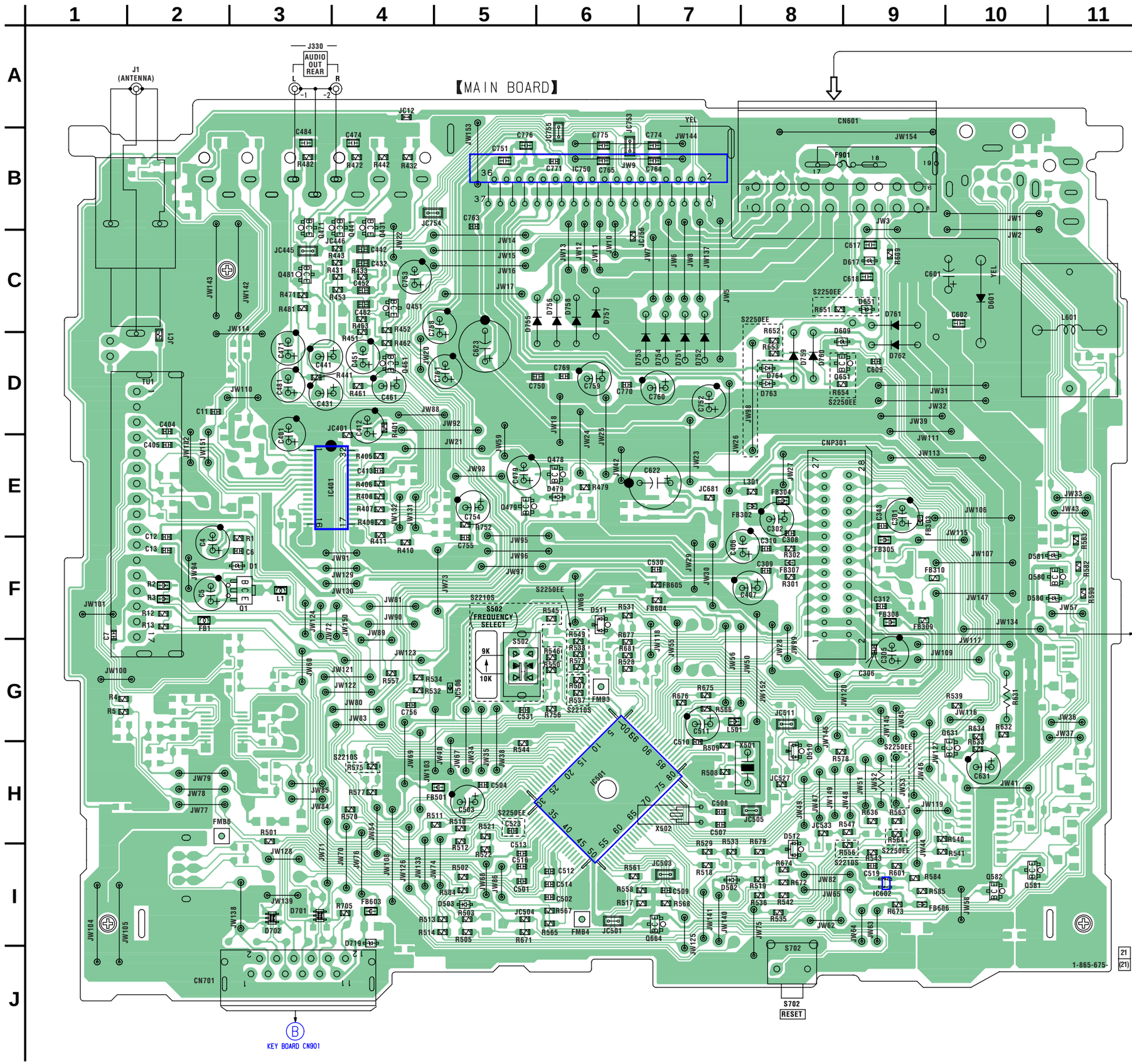


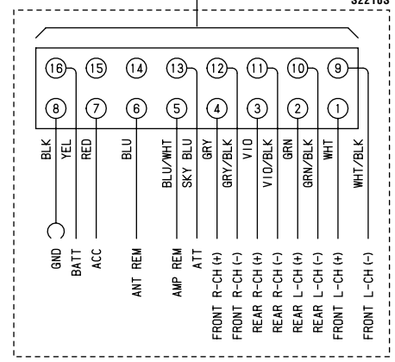
1-3. SCHEMATIC DIAGRAM — CD MECHANISM SECTION (2/2) —

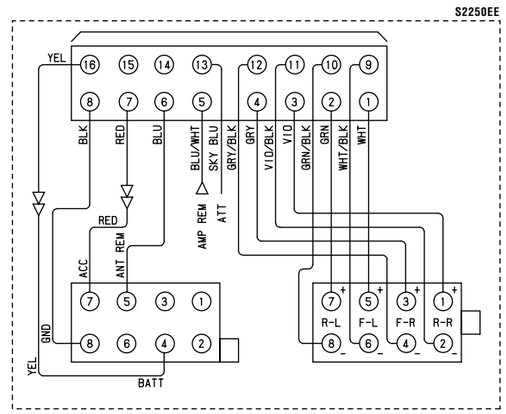
• Refer to page 3 for Waveforms.
• Refer to page 12 for IC Block Diagrams.



1-4. PRINTED WIRING BOARD — MAIN SECTION — : Uses unleaded solder.



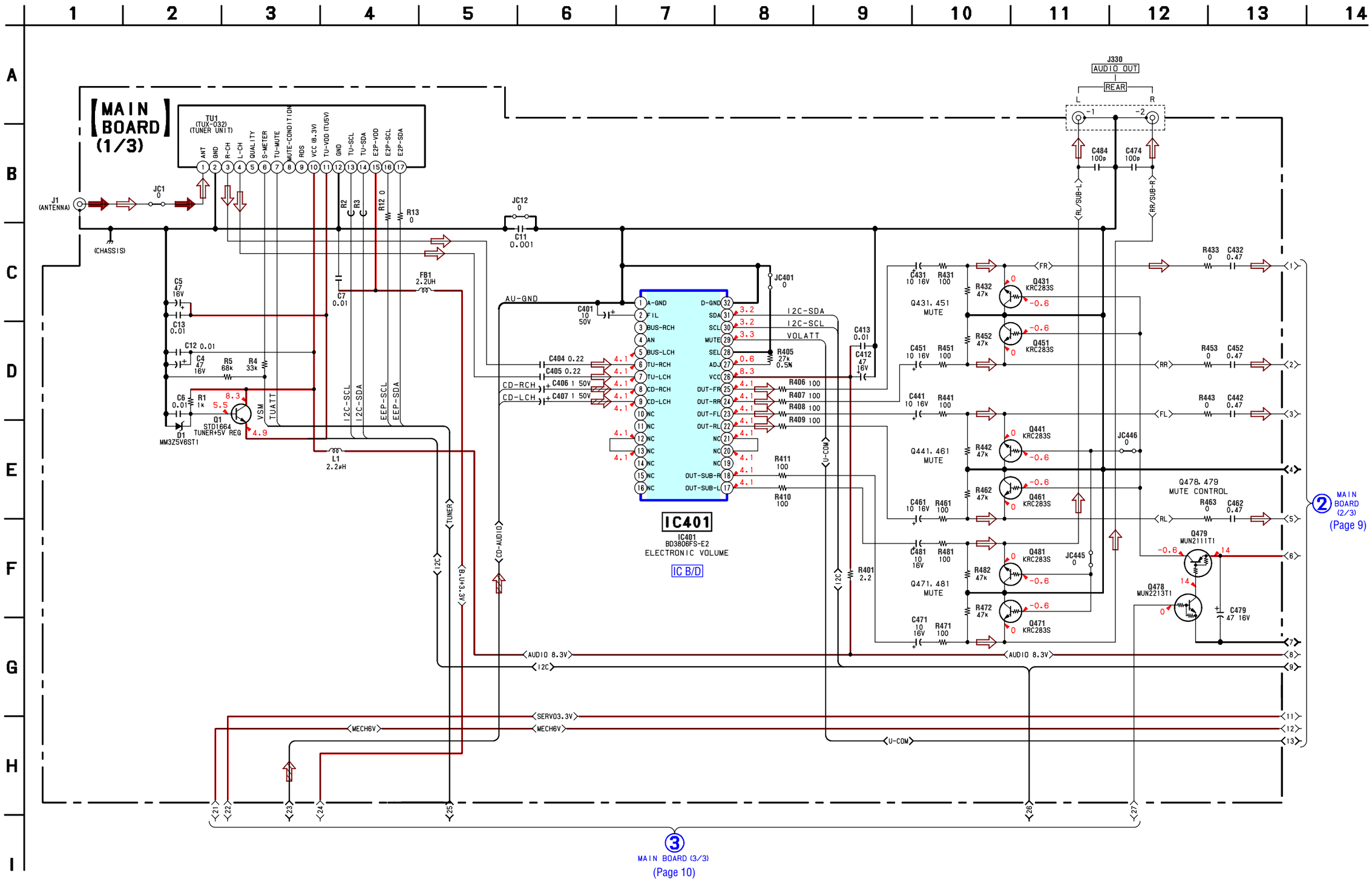




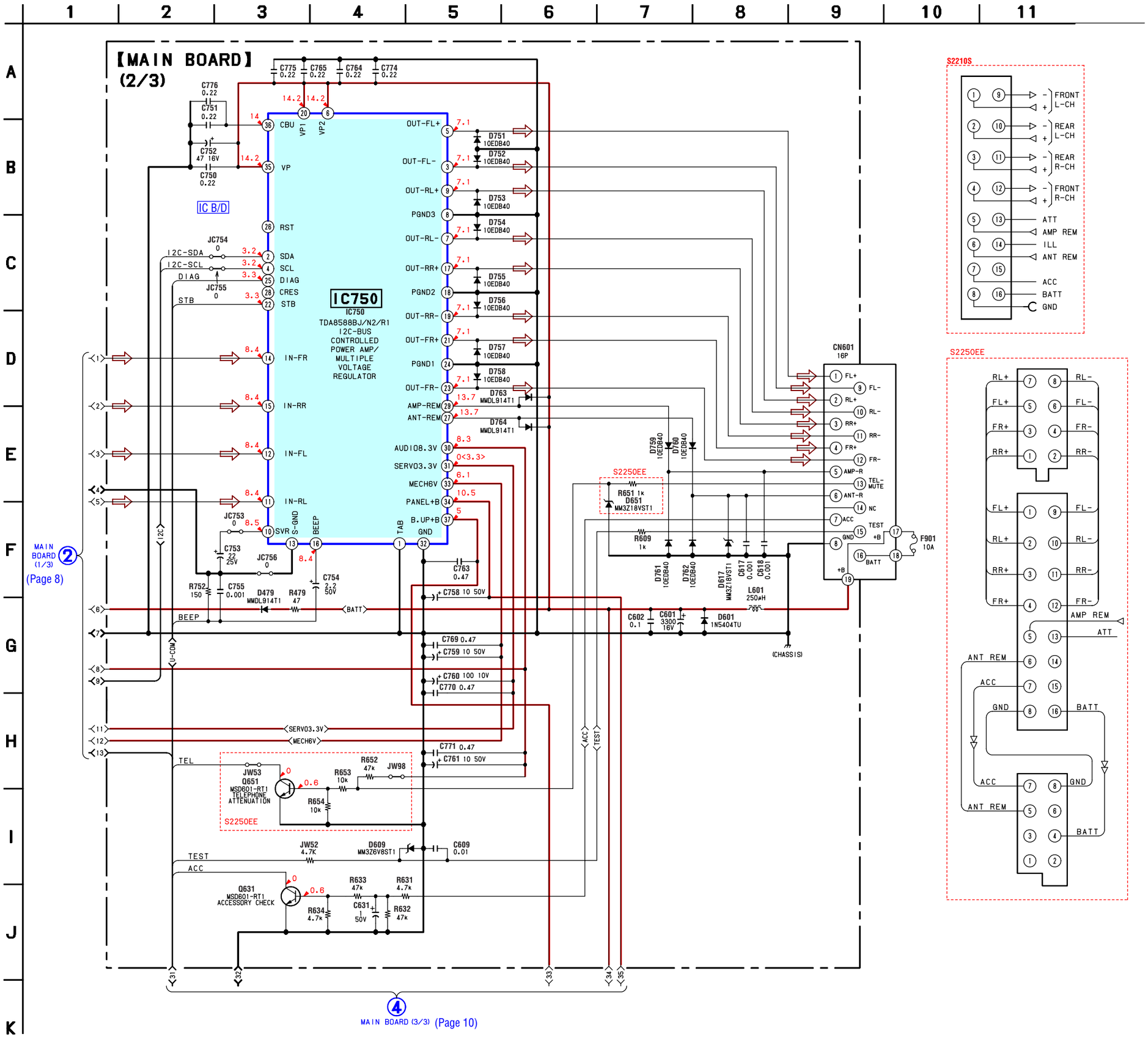
- **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D1	F-3	D761	C-9
D479	E-6	D762	D-9
D502	I-8	D763	D-8
D503	I-5	D764	D-8
D510	H-8		
D511	F-6	IC401	E-3
D512	I-8	IC501	H-6
D580	F-11	IC602	I-9
D581	F-11	IC750	B-6
D601	C-10		
D609	D-8	Q1	F-3
D617	C-9	Q431	B-4
D651	C-9	Q441	B-4
D701	I-3	Q451	C-4
D702	I-3	Q461	D-4
D719	I-4	Q471	B-3
D751	D-7	Q478	E-6
D752	D-7	Q479	E-5
D753	D-7	Q481	C-3
D754	D-7	Q580	F-11
D755	C-5	Q581	I-10
D756	C-6	Q582	I-10
D757	C-6	Q631	H-10
D758	C-6	Q651	D-8
D759	D-8	Q664	I-7
D760	D-8		

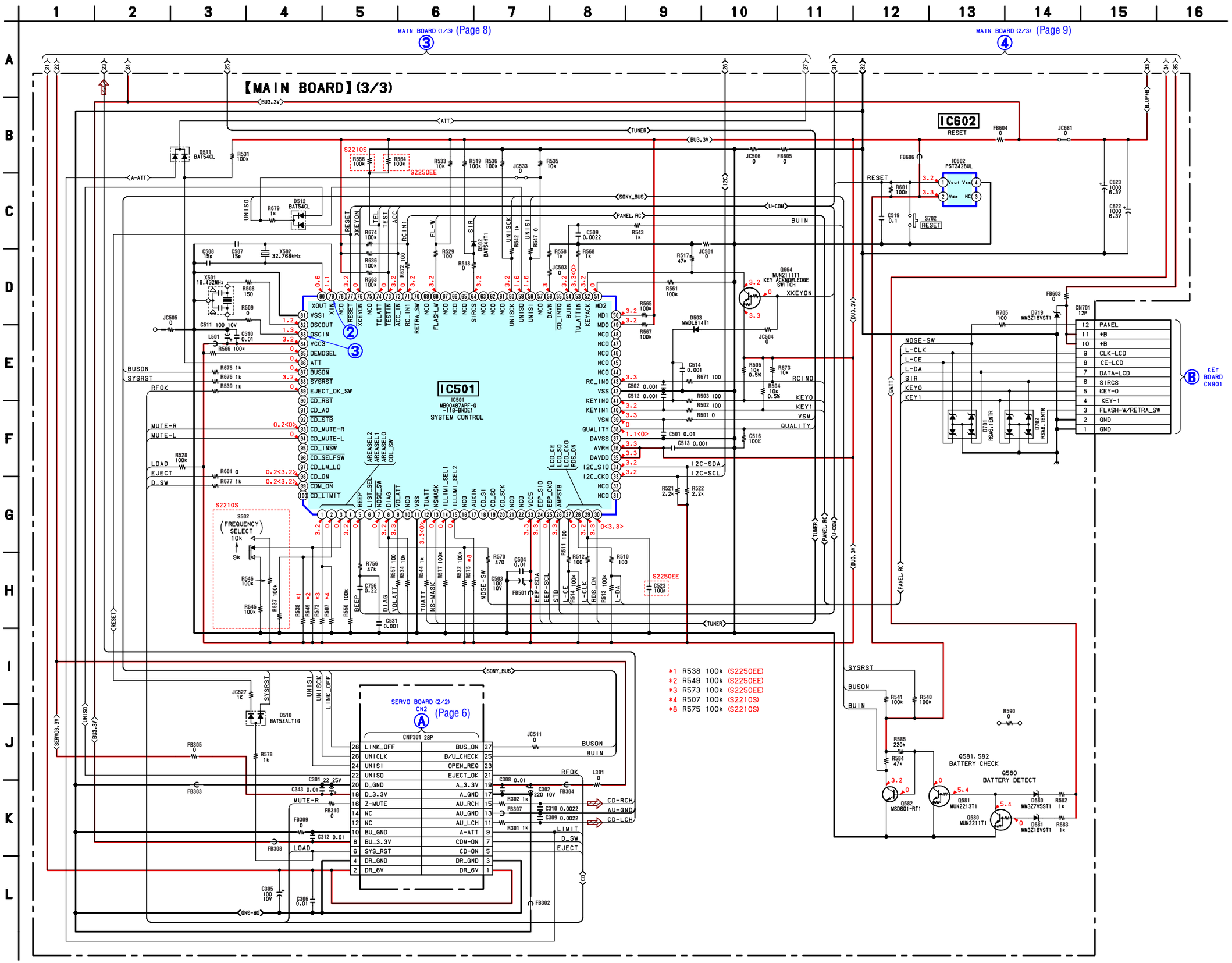
1-5. SCHEMATIC DIAGRAM — MAIN SECTION (1/3) — • Refer to page 12 for IC Block Diagrams.



1-6. SCHEMATIC DIAGRAM — MAIN SECTION (2/3) — • Refer to page 13 for IC Block Diagrams.

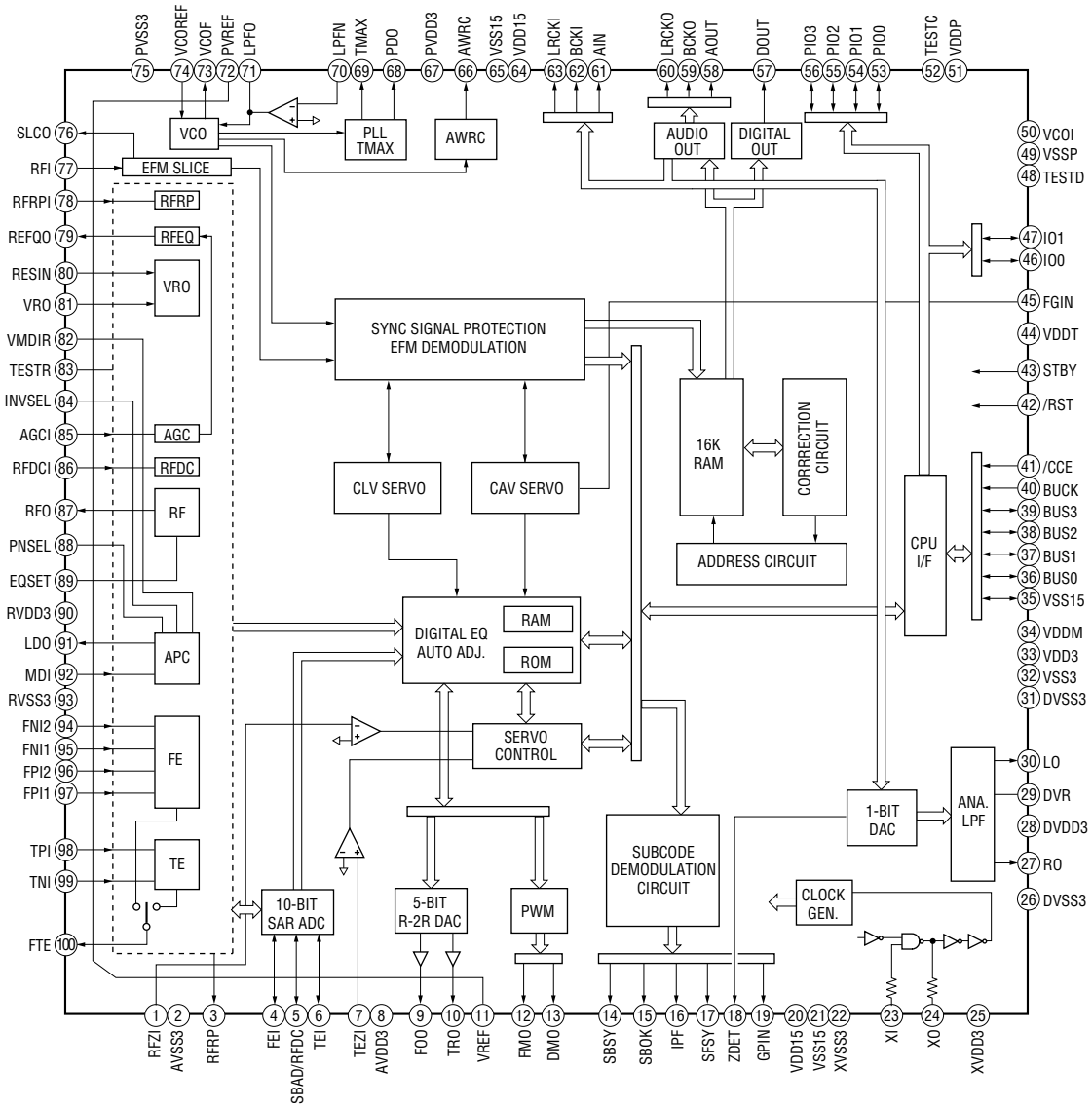


1-7. SCHEMATIC DIAGRAM — MAIN SECTION (3/3) — • Refer to page 3 for Waveforms.

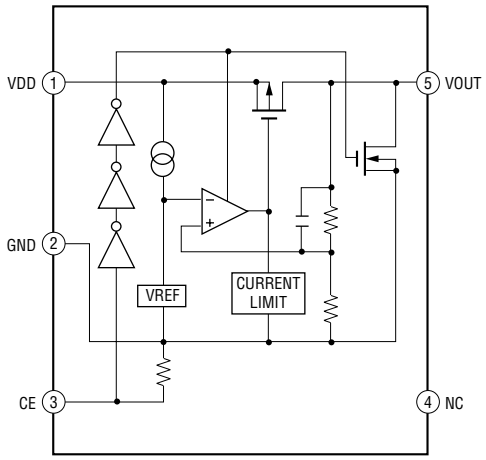


• IC BLOCK DIAGRAMS

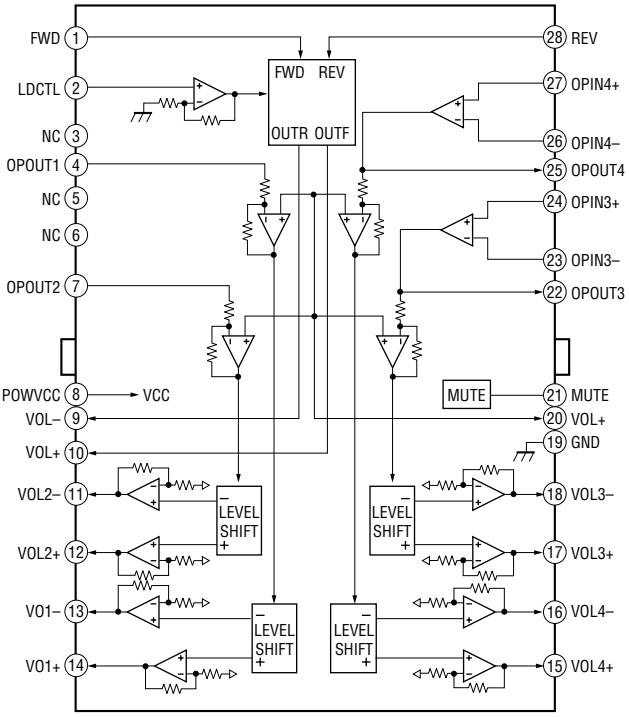
IC2 TC94A60MFG-301 (SERVO Board (1/2))


PVSS3 VCOREF VCOF PVREF LPFO LPFN TMAX PDO PVDD3 AWRC VSS15 VDD15 LRCKI BCKI AIN LRCKO BCKO AOUT DOUT PIO3 PIO2 PIO1 PIO0 TESTC VDDP
VCO
PLL TMAX
AWRC
AUDIO OUT
DIGITAL OUT
EFM SLICE
RFRP
RFEQ
VRO
AGC
RFDC
RF
APC
FE
TE
SYNC SIGNAL PROTECTION EFM DEMODULATION
CLV SERVO
CAV SERVO
16K RAM
CORRRECTION CIRCUIT
ADDRESS CIRCUIT
CPU I/F
DIGITAL EQ AUTO ADJ.
RAM
ROM
SERVO CONTROL
10-BIT SAR ADC
5-BIT R-2R DAC
PWM
SUBCODE DEMODULATION CIRCUIT
CLOCK GEN.
1-BIT DAC
ANA. LPF
SLCO RFI RFRPI REFQO RESIN VRO VMDIR TESTR INVSEL AGCI RFDCI RFO PNSEL EQSET RVDD3 LDO MDI RVSS3 FNI2 FNI1 FPI2 FPI1 TPI TNI FTE
VCOI VSSP TESTD IO1 IO0 FGIN VDDT STBY /RST /CCE BUCK BUS3 BUS2 BUS1 BUS0 VSS15 VDDM VDD3 VSS3 DVSS3 LO DVR DVDD3 RO DVSS3
RFZI AVSS3 RFRP FEI SBAD/RFDC TEI TEZI AVDD3 FOO TRO VREF FMO DMO SBSY SBOK IPF SFSY ZDET GPIN VDD15 VSS15 XVSS3 XI XO XVDD3

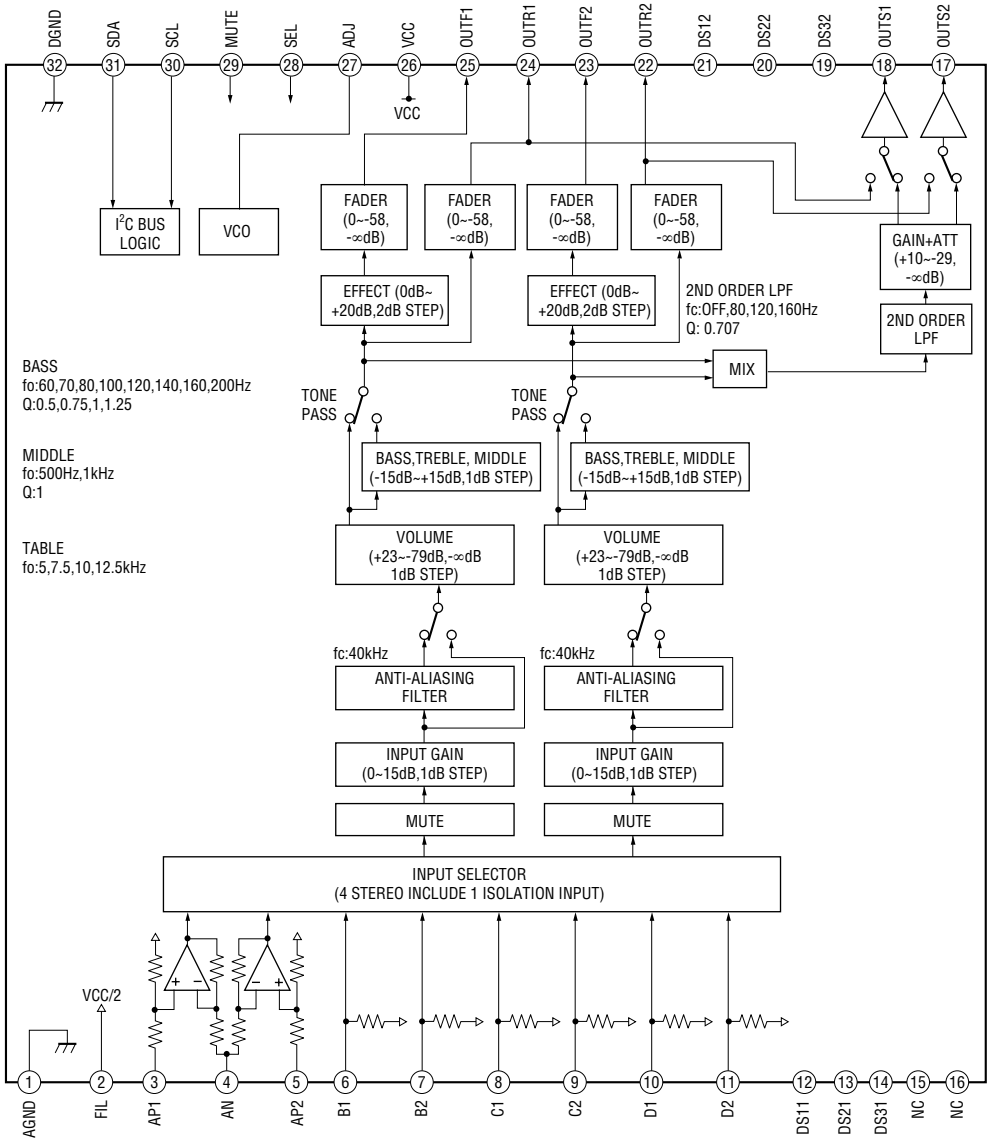
IC6 R1114N151D-TR-FA (SERVO Board (1/2))



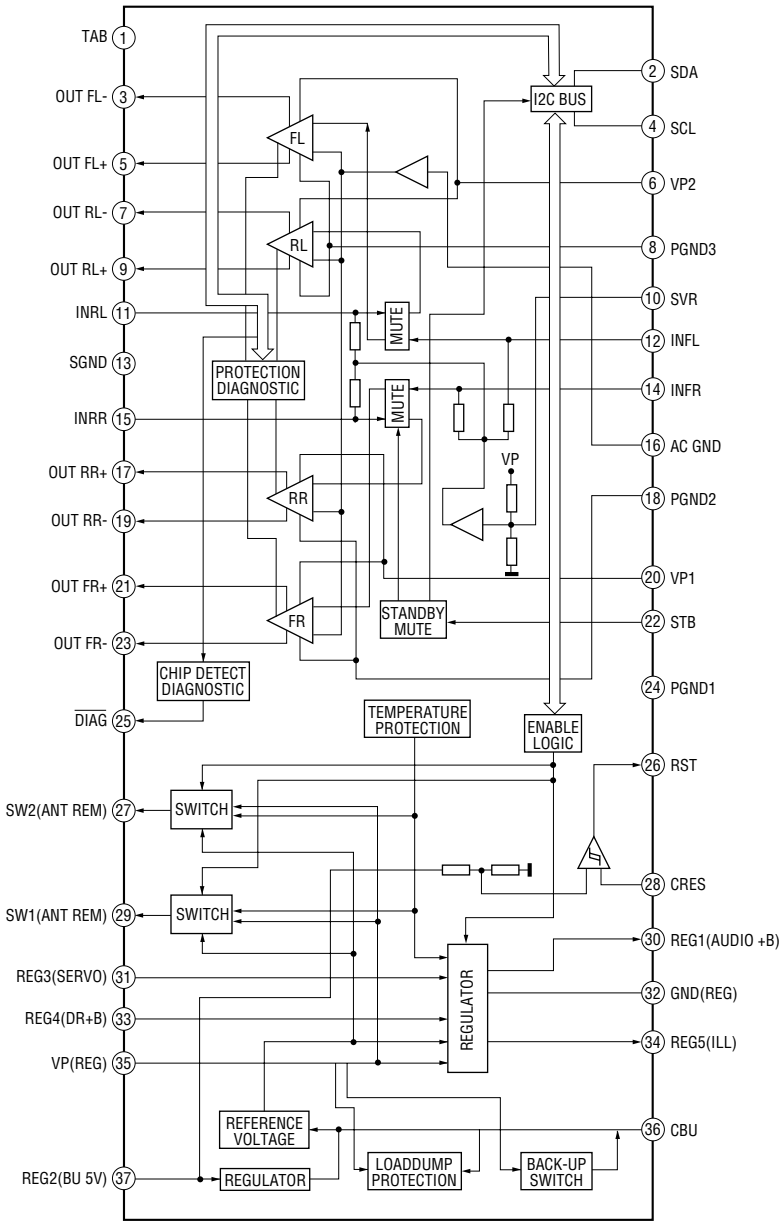
IC1 BA5968FP-E2 (SERVO Board (2/2))



IC401 BD3806FS-E2 (MAIN Board (1/3))



IC750 TDA8588BJ/N2/R1 (MAIN Board (2/3))



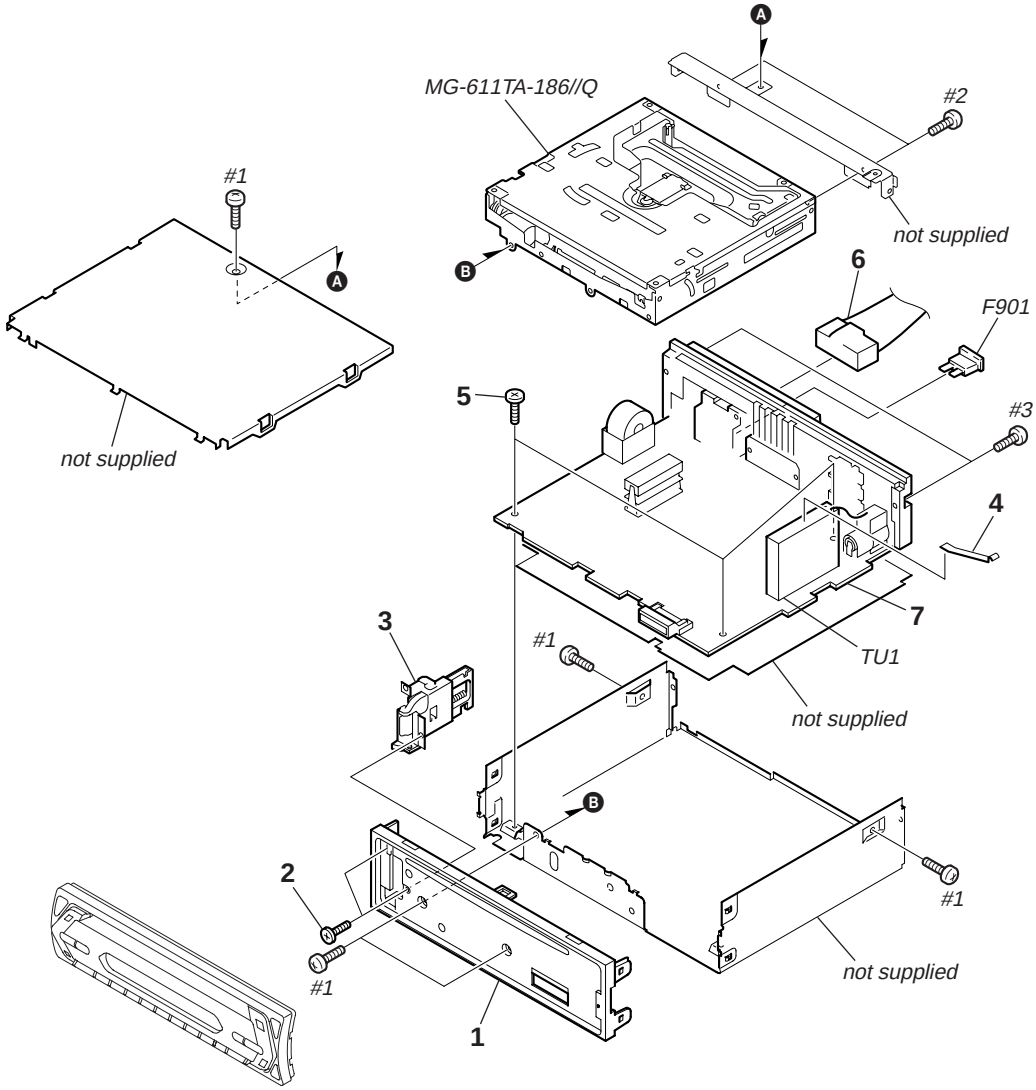
SECTION 2
EXPLODED VIEWS

NOTE:
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example :
  KNOB, BALANCE (WHITE) ... (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Accessories are given in the last of this parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

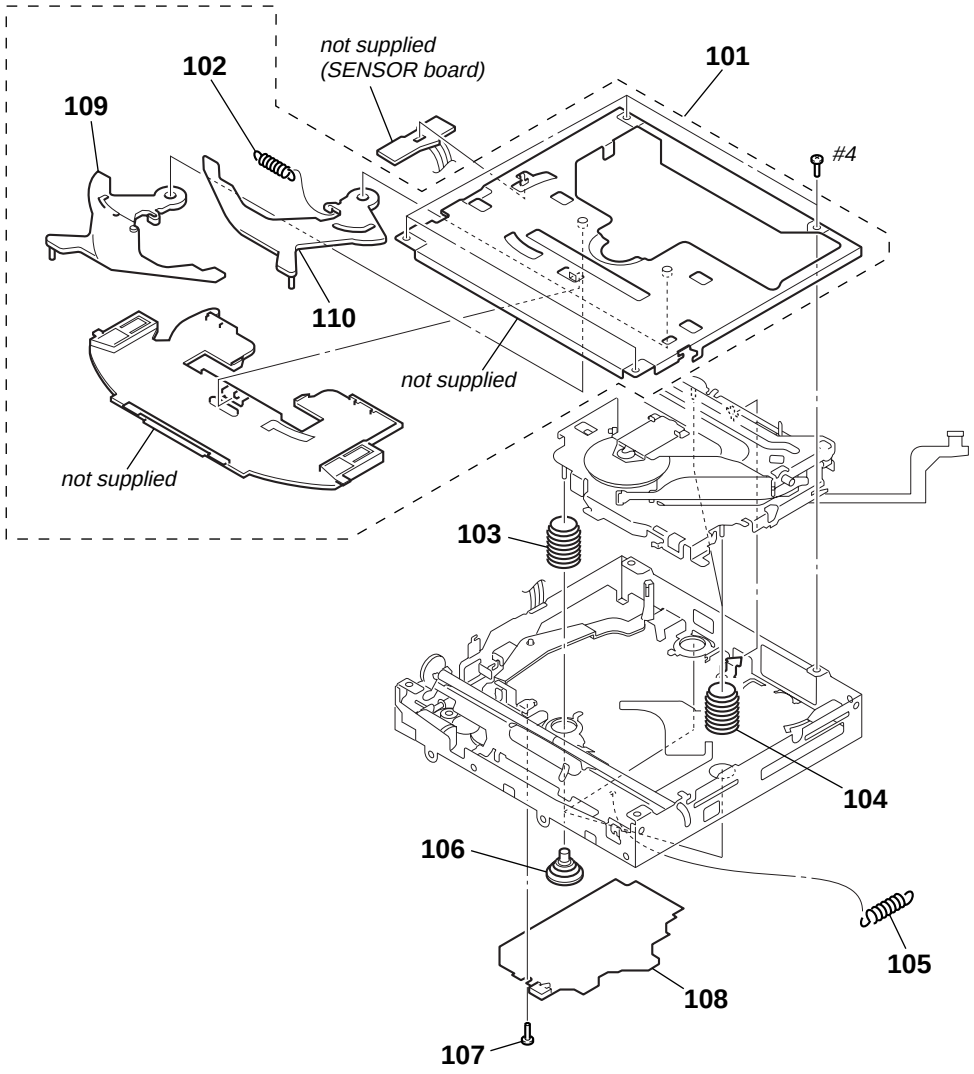
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

2-1. MAIN SECTION



Ref. No.	Part No.	Description	Remark
1	X-2023-967-1	PANEL (LCD) ASSY, SUB	
2	2-583-939-01	SCREW (+B 2X4)	
3	X-2024-365-2	LOCK ASSY (S)	
4	2-021-848-01	SHEET (TU), GROUND	
5	2-050-124-01	SCREW +BTT 2.6X5	
6	1-776-206-21	CORD (WITH CONNECTOR) (POWER) (S2210S)	
6	1-776-527-61	CORD (WITH CONNECTOR) (ISO) (POWER) (S2250EE)	
7	A-1115-260-A	MAIN BOARD, COMPLETE (S2210S)	
7	A-1124-781-A	MAIN BOARD, COMPLETE (S2250EE)	
F901	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	
TU1	A-3220-961-A	TUNER UNIT (TUX-032)	
#1	7-685-792-09	SCREW +PTT 2.6X6 (S)	
#2	7-685-790-01	SCREW +PTT 2.6X4 (S)	
#3	7-685-793-09	SCREW +PTT 2.6X8 (S)	

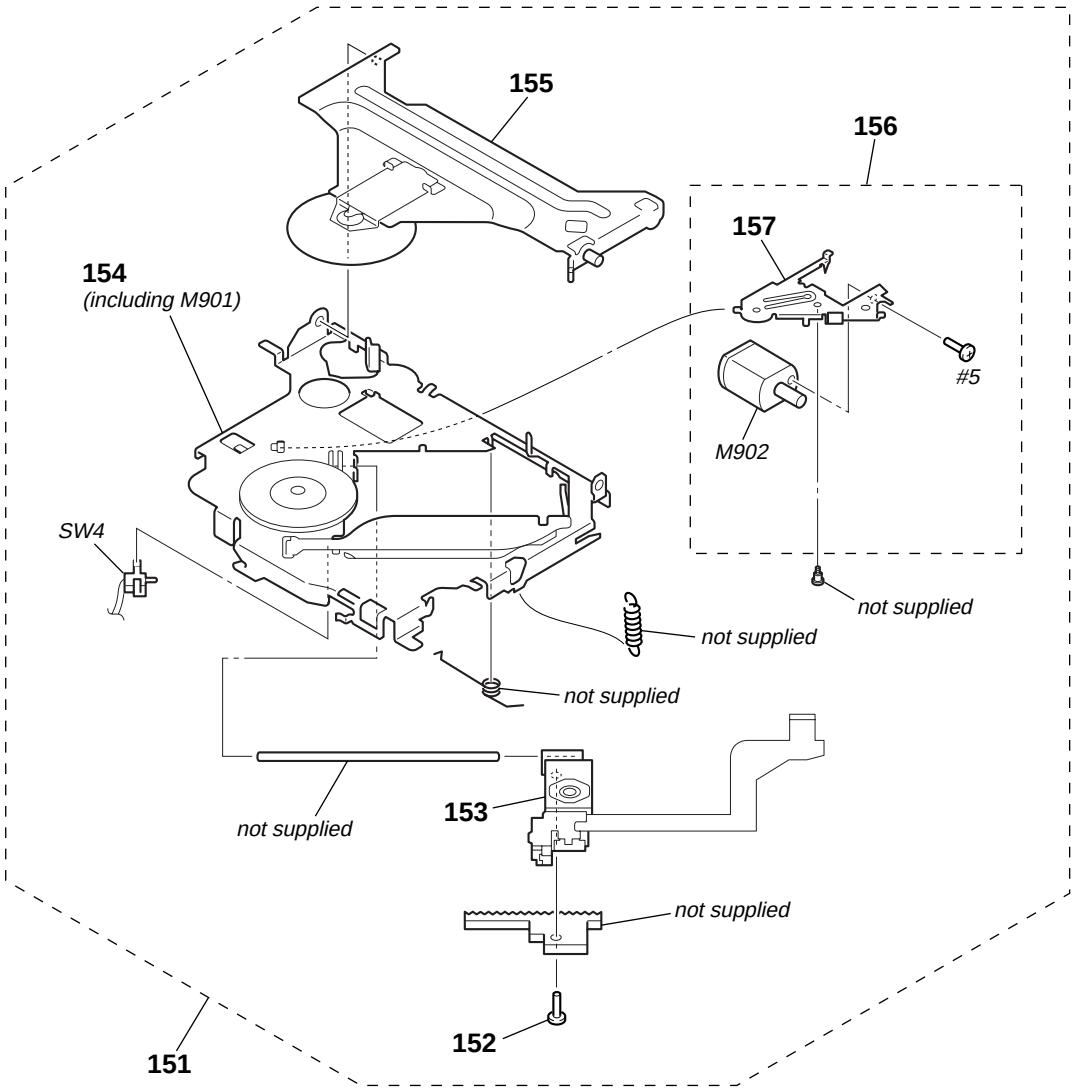
2-2. CD MECHANISM SECTION (1)
(MG-611TA-186//Q)



Ref. No.	Part No.	Description	Remark
101	A-3372-444-A	CHASSIS (T) SUB ASSY	
102	3-253-729-11	SPRING (LTR), TENSION COIL	
103	3-257-892-12	SPRING (DAMPER), COIL	
104	3-257-892-01	SPRING (DAMPER), COIL	
105	2-345-767-11	SPRING (KF60), TENSION	
106	3-259-033-01	DAMPER (S)	

Ref. No.	Part No.	Description	Remark
107	2-587-505-01	SCREW	
108	A-1082-772-A	SERVO BOARD, COMPLETE	
109	X-3384-088-2	LEVER (L) ASSY	
110	X-3384-089-2	LEVER (R) ASSY	
#4	7-627-552-87	SCREW, PRECISION +P 1.7X2.2	

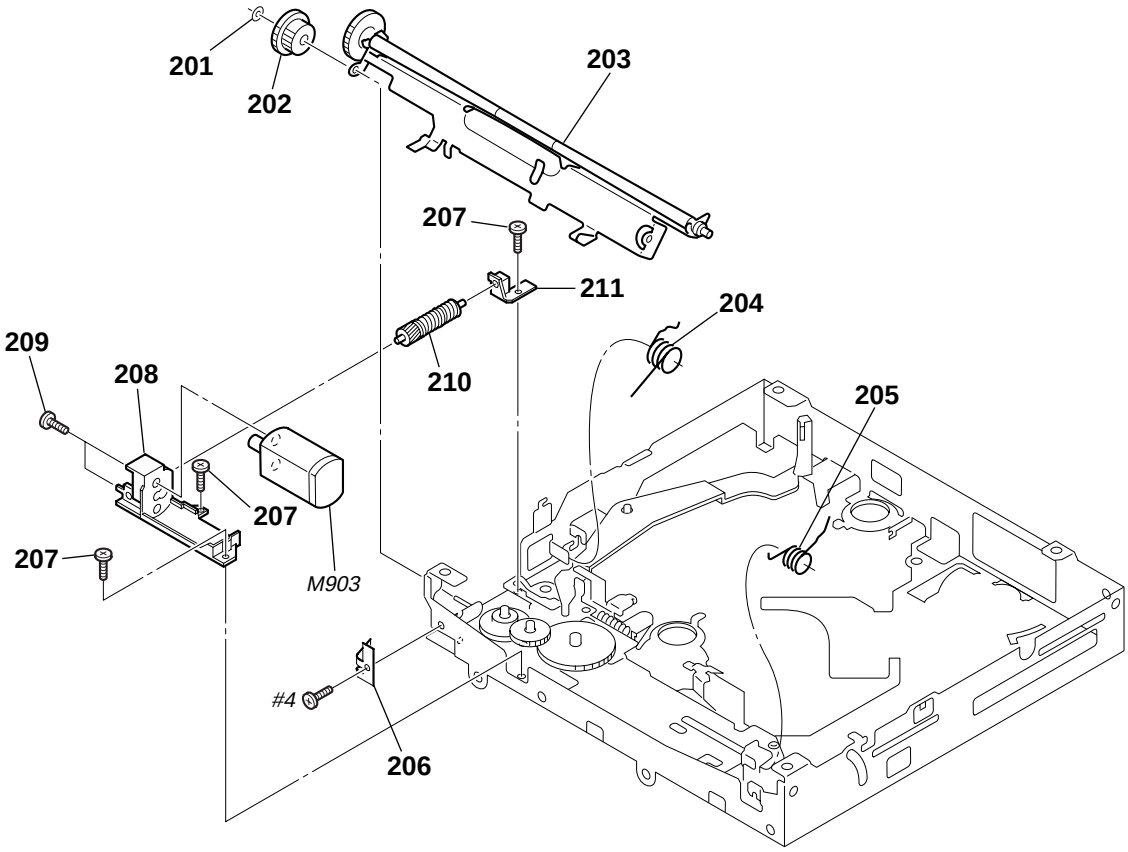
2-3. CD MECHANISM SECTION (2)
(MG-611TA-186//Q)



Ref. No.	Part No.	Description	Remark
151	A-1075-644-A	CHASSIS (OP) COMPLETE ASSY	
152	3-316-938-91	SCREW (B1.4X5), TAPPING	
⚠153	8-820-207-12	OPTICAL PICK-UP (KSS1000E/K1RP)	
154	A-1075-645-A	CHASSIS (OP) SUB ASSY (including M901)	
155	A-3372-449-A	ARM SUB ASSY, CHUCKING	

Ref. No.	Part No.	Description	Remark
156	A-3372-446-A	LEVER (SL) SUB ASSY	
157	X-3384-090-2	LEVER (SL) ASSY	
M902	A-3372-447-A	MOTOR ASSY, SL (SLED)	
SW4	1-571-099-11	SWITCH (1 KEY) (LIMIT)	
#5	7-627-850-77	SCREW, PRECISION +P 1.4X1.8	

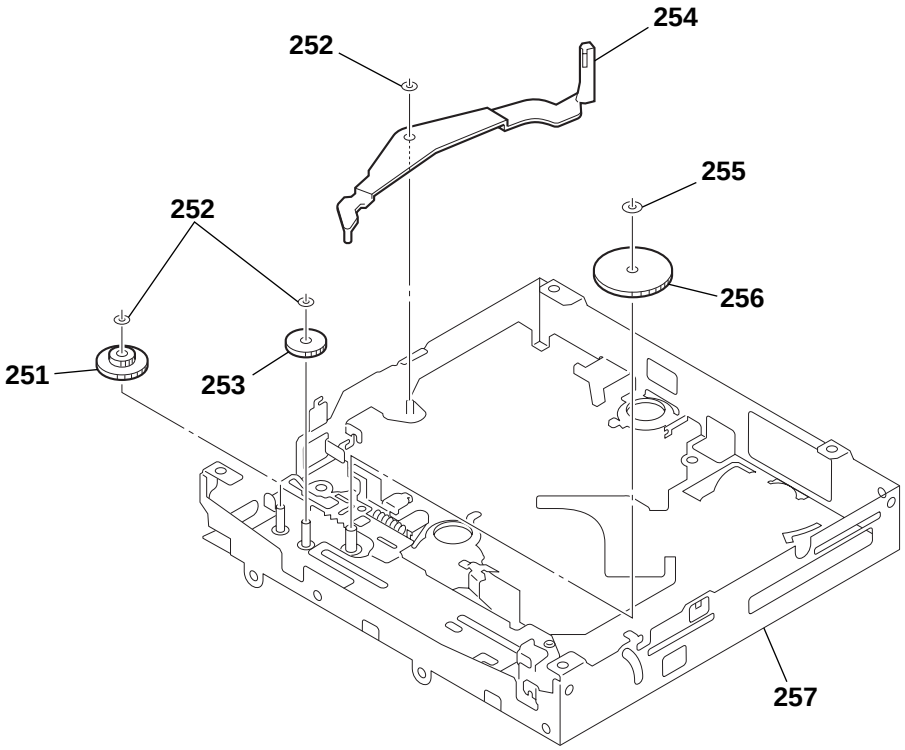
2-4. CD MECHANISM SECTION (3)
(MG-611TA-186//Q)



Ref. No.	Part No.	Description	Remark
201	3-348-993-01	WASHER	
202	2-186-699-01	GEAR (RA1)	
203	A-1075-641-B	ARM ASSY, ROLLER	
204	3-259-455-12	SPRING (RAL)	
205	3-253-713-11	SPRING (RAR)	
206	3-259-469-12	SPRING (LE), LEAF	
207	2-134-636-21	SCREW (M1.7X2.5)	

Ref. No.	Part No.	Description	Remark
208	2-186-696-01	BRACKET (LEM-N)	
209	3-345-648-91	SCREW (M1.4), TOOTHED LOCK	
210	A-1083-636-A	GEAR (LE) ASSY	
211	2-186-697-01	BEARING (LEB-N)	
M903	A-1075-643-A	MOTOR ASSY, LE (LOADING)	
#4	7-627-552-87	SCREW, PRECISION +P 1.7X2.2	

2-5. CD MECHANISM SECTION (4)
(MG-611TA-186//Q)



Ref. No.	Part No.	Description	Remark
251	2-186-700-01	GEAR (CHK1)	
252	3-344-223-01	WASHER	
253	3-259-470-11	GEAR (LE1)	
254	3-253-755-12	LEVER (D)	
255	2-630-962-01	WASHER (SLIT)	
* 256	2-590-545-01	GEAR (LE2-M)	
257	A-1075-640-B	CHASSIS (M) BLOCK ASSY	

SECTION 3
ELECTRICAL PARTS LIST

MAIN

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : µ, for example:
  uA.. : µA.. uPA.. : µPA..
  uPB.. : µPB.. uPC.. : µPC.. uPD.. : µPD..
- CAPACITORS
  uF : µF
- COILS
  uH : µH

When indicating parts by reference number, please include the board.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

Ref. No.	Part No.	Description			Remark
	A-1115-260-A	MAIN BOARD, COMPLETE (S2210S)			
	A-1124-781-A	MAIN BOARD, COMPLETE (S2250EE)			
		**********			
	7-685-134-19	SCREW +P 2.6X8 TYPE2 NON-SLIT			
	7-685-794-09	SCREW +PTT 2.6X10 (S)			
		< CAPACITOR >			
C4	1-126-947-11	ELECT	47uF	20%	35V
C5	1-126-947-11	ELECT	47uF	20%	35V
C6	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C7	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C11	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C12	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C13	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C301	1-128-551-11	ELECT	22uF	20%	63V
C302	1-126-934-11	ELECT	220uF	20%	16V
C305	1-104-665-11	ELECT	100uF	20%	25V
C306	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C308	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C309	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C310	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C312	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C343	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C401	1-126-964-11	ELECT	10uF	20%	50V
C404	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C405	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C406	1-126-960-11	ELECT	1uF	20%	50V
C407	1-126-960-11	ELECT	1uF	20%	50V
C412	1-126-947-11	ELECT	47uF	20%	35V
C413	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C431	1-126-791-11	ELECT	10uF	20%	35V
C432	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C441	1-126-791-11	ELECT	10uF	20%	35V
C442	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C451	1-126-791-11	ELECT	10uF	20%	35V
C452	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C461	1-126-791-11	ELECT	10uF	20%	35V
C462	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C471	1-126-791-11	ELECT	10uF	20%	35V
C474	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C479	1-126-947-11	ELECT	47uF	20%	35V

Ref. No.	Part No.	Description			Remark
C481	1-126-791-11	ELECT	10uF	20%	35V
C484	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C501	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C502	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C503	1-104-665-11	ELECT	100uF	20%	25V
C504	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C507	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C508	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C509	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C510	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C511	1-104-665-11	ELECT	100uF	20%	25V
C512	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C513	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C514	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C516	1-216-845-11	METAL CHIP	100K	5%	1/10W
C519	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C523	1-162-927-11	CERAMIC CHIP	100PF	5%	50V (S2250EE)
C531	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C601	1-131-868-81	ELECT	3300uF	20%	16V
C602	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C609	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C617	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C618	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C622	1-126-916-11	ELECT	1000uF	20%	6.3V
C623	1-126-916-11	ELECT	1000uF	20%	6.3V
C631	1-126-960-11	ELECT	1uF	20%	50V
C750	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C751	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C752	1-126-947-11	ELECT	47uF	20%	35V
C753	1-128-551-11	ELECT	22uF	20%	63V
C754	1-126-961-11	ELECT	2.2uF	20%	50V
C755	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C756	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C758	1-126-964-11	ELECT	10uF	20%	50V
C759	1-126-964-11	ELECT	10uF	20%	50V
C760	1-104-665-11	ELECT	100uF	20%	25V
C761	1-126-964-11	ELECT	10uF	20%	50V
C763	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C764	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C765	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C769	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C770	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C771	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C774	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V

MAIN

Ref. No.	Part No.	Description			Remark
C775	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C776	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
		< CONNECTOR >			
CN601	1-774-701-21	PIN, CONNECTOR 16P			
CN701	1-794-311-21	PLUG, CONNECTOR 12P			
CNP301	1-817-536-11	CONNECTOR, BOARD TO BOARD 28P			
		< DIODE >			
D1	8-719-036-94	DIODE	RD5.6SB-T1		
D479	8-719-081-97	DIODE	MMDL914T1		
D502	6-500-137-01	DIODE	BAT54HT1		
D503	8-719-081-97	DIODE	MMDL914T1		
D510	6-501-013-01	DIODE	BAT54ALT1G		
D511	6-501-051-01	DIODE	BAT54CLT1G		
D512	6-501-051-01	DIODE	BAT54CLT1G		
D580	8-719-056-83	DIODE	UDZ-TE-17-6.8B		
D581	8-719-056-93	DIODE	UDZ-TE-17-18B		
D601	8-719-049-38	DIODE	1N5404TU		
D609	8-719-056-83	DIODE	UDZ-TE-17-6.8B		
D617	8-719-056-93	DIODE	UDZ-TE-17-18B		
D651	8-719-056-93	DIODE	UDZ-TE-17-18B (S2250EE)		
D701	6-500-886-01	DIODE	RSA6.1ENTR		
D702	6-500-886-01	DIODE	RSA6.1ENTR		
D719	8-719-056-93	DIODE	UDZ-TE-17-18B		
D751	6-500-522-01	DIODE	10EDB40-TA1B2		
D752	6-500-522-01	DIODE	10EDB40-TA1B2		
D753	6-500-522-01	DIODE	10EDB40-TA1B2		
D754	6-500-522-01	DIODE	10EDB40-TA1B2		
D755	6-500-522-01	DIODE	10EDB40-TA1B2		
D756	6-500-522-01	DIODE	10EDB40-TA1B2		
D757	6-500-522-01	DIODE	10EDB40-TA1B2		
D758	6-500-522-01	DIODE	10EDB40-TA1B2		
D759	6-500-522-01	DIODE	10EDB40-TA1B2		
D760	6-500-522-01	DIODE	10EDB40-TA1B2		
D761	6-500-522-01	DIODE	10EDB40-TA1B2		
D762	6-500-522-01	DIODE	10EDB40-TA1B2		
D763	8-719-081-97	DIODE	MMDL914T1		
D764	8-719-081-97	DIODE	MMDL914T1		
		< FERRITE BEAD >			
FB1	1-469-844-11	INDUCTOR	2.2uH		
FB302	1-469-876-11	INDUCTOR, FERRITE BEAD			
FB303	1-469-876-11	INDUCTOR, FERRITE BEAD			
FB304	1-500-245-11	INDUCTOR, FERRITE BEAD			
FB305	1-216-295-11	SHORT CHIP	0		
FB307	1-469-876-11	INDUCTOR, FERRITE BEAD			
FB308	1-500-245-11	INDUCTOR, FERRITE BEAD			
FB309	1-216-864-11	SHORT CHIP	0		
FB310	1-216-864-11	SHORT CHIP	0		
FB501	1-500-245-11	INDUCTOR, FERRITE BEAD			
FB603	1-216-295-11	SHORT CHIP	0		
FB604	1-216-295-11	SHORT CHIP	0		
FB605	1-216-864-11	SHORT CHIP	0		
FB606	1-414-595-11	INDUCTOR, FERRITE BEAD			

Ref. No.	Part No.	Description			Remark
		< IC >			
IC401	6-705-372-01	IC	BD3808FS-FE2		
IC501	6-804-912-01	IC	MB90487APF-G-118-BNDE1		
IC602	8-759-659-13	IC	PST3428UL		
IC750	6-705-360-02	IC	TDA8588BJ/N2/R1		
		< JACK >			
J1	1-815-185-13	JACK (ANTENNA)			
J330	1-774-698-11	JACK, PIN 2P (AUDIO OUT REAR)			
		< JUMPER RESISTOR >			
JC1	1-216-864-11	SHORT CHIP	0		
JC12	1-216-864-11	SHORT CHIP	0		
JC401	1-216-864-11	SHORT CHIP	0		
JC445	1-216-296-11	SHORT CHIP	0		
JC446	1-216-864-11	SHORT CHIP	0		
JC501	1-216-296-11	SHORT CHIP	0		
JC503	1-216-296-11	SHORT CHIP	0		
JC504	1-216-864-11	SHORT CHIP	0		
JC505	1-216-296-11	SHORT CHIP	0		
JC506	1-216-864-11	SHORT CHIP	0		
JC511	1-216-296-11	SHORT CHIP	0		
JC527	1-216-821-11	METAL CHIP	1K	5%	1/10W
JC533	1-216-864-11	SHORT CHIP	0		
JC681	1-216-864-11	SHORT CHIP	0		
JC753	1-216-296-11	SHORT CHIP	0		
JC754	1-216-296-11	SHORT CHIP	0		
JC755	1-216-296-11	SHORT CHIP	0		
JC756	1-216-864-11	SHORT CHIP	0		
		< RESISTOR >			
JW52	1-249-425-11	CARBON	4.7K	5%	1/4W
		< COIL >			
L1	1-469-844-11	INDUCTOR	2.2uH		
L301	1-216-295-11	SHORT CHIP	0		
L501	1-500-245-11	INDUCTOR, FERRITE BEAD			
L601	1-456-617-11	COIL, CHOKE	250uH		
		< TRANSISTOR >			
Q1	8-729-920-85	TRANSISTOR	2SD1664-QR		
Q431	6-551-070-01	TRANSISTOR	KRC283S-B-RPK/P		
Q441	6-551-070-01	TRANSISTOR	KRC283S-B-RPK/P		
Q451	6-551-070-01	TRANSISTOR	KRC283S-B-RPK/P		
Q461	6-551-070-01	TRANSISTOR	KRC283S-B-RPK/P		
Q471	6-551-070-01	TRANSISTOR	KRC283S-B-RPK/P		
Q478	8-729-421-19	TRANSISTOR	UN2213		
Q479	8-729-424-08	TRANSISTOR	UN2111		
Q481	6-551-070-01	TRANSISTOR	KRC283S-B-RPK/P		
Q580	8-729-421-22	TRANSISTOR	UN2211		
Q581	8-729-421-19	TRANSISTOR	UN2213		
Q582	8-729-010-25	TRANSISTOR	MSD601-RT1		
Q631	8-729-010-25	TRANSISTOR	MSD601-RT1		
Q651	8-729-010-25	TRANSISTOR	MSD601-RT1 (S2250EE)		
Q664	8-729-424-08	TRANSISTOR	UN2111		

MAIN

Ref. No.	Part No.	Description			Remark
		< RESISTOR >			
R1	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2	1-414-595-11	INDUCTOR, FERRITE BEAD			
R3	1-414-595-11	INDUCTOR, FERRITE BEAD			
R4	1-216-839-11	METAL CHIP	33K	5%	1/10W
R5	1-216-843-11	METAL CHIP	68K	5%	1/10W
R12	1-216-864-11	SHORT CHIP	0		
R13	1-216-864-11	SHORT CHIP	0		
R301	1-216-821-11	METAL CHIP	1K	5%	1/10W
R302	1-216-821-11	METAL CHIP	1K	5%	1/10W
R401	1-216-789-11	METAL CHIP	2.2	5%	1/10W
R405	1-218-881-11	METAL CHIP	27K	0.5%	1/10W
R406	1-216-809-11	METAL CHIP	100	5%	1/10W
R407	1-216-809-11	METAL CHIP	100	5%	1/10W
R408	1-216-809-11	METAL CHIP	100	5%	1/10W
R409	1-216-809-11	METAL CHIP	100	5%	1/10W
R410	1-216-809-11	METAL CHIP	100	5%	1/10W
R411	1-216-809-11	METAL CHIP	100	5%	1/10W
R431	1-216-809-11	METAL CHIP	100	5%	1/10W
R432	1-216-841-11	METAL CHIP	47K	5%	1/10W
R433	1-216-864-11	SHORT CHIP	0		
R441	1-216-809-11	METAL CHIP	100	5%	1/10W
R442	1-216-841-11	METAL CHIP	47K	5%	1/10W
R443	1-216-864-11	SHORT CHIP	0		
R451	1-216-809-11	METAL CHIP	100	5%	1/10W
R452	1-216-841-11	METAL CHIP	47K	5%	1/10W
R453	1-216-864-11	SHORT CHIP	0		
R461	1-216-809-11	METAL CHIP	100	5%	1/10W
R462	1-216-841-11	METAL CHIP	47K	5%	1/10W
R463	1-216-864-11	SHORT CHIP	0		
R471	1-216-809-11	METAL CHIP	100	5%	1/10W
R472	1-216-841-11	METAL CHIP	47K	5%	1/10W
R479	1-216-805-11	METAL CHIP	47	5%	1/10W
R481	1-216-809-11	METAL CHIP	100	5%	1/10W
R482	1-216-841-11	METAL CHIP	47K	5%	1/10W
R501	1-216-864-11	SHORT CHIP	0		
R502	1-216-809-11	METAL CHIP	100	5%	1/10W
R503	1-216-809-11	METAL CHIP	100	5%	1/10W
R504	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R505	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R507	1-216-845-11	METAL CHIP	100K	5%	1/10W (S2210S)
R508	1-216-811-11	METAL CHIP	150	5%	1/10W
R509	1-216-864-11	SHORT CHIP	0		
R510	1-216-809-11	METAL CHIP	100	5%	1/10W
R511	1-216-809-11	METAL CHIP	100	5%	1/10W
R512	1-216-809-11	METAL CHIP	100	5%	1/10W
R513	1-216-845-11	METAL CHIP	100K	5%	1/10W
R514	1-216-845-11	METAL CHIP	100K	5%	1/10W
R517	1-216-841-11	METAL CHIP	47K	5%	1/10W
R518	1-216-864-11	SHORT CHIP	0		
R519	1-216-845-11	METAL CHIP	100K	5%	1/10W
R521	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R522	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R528	1-216-845-11	METAL CHIP	100K	5%	1/10W
R529	1-216-809-11	METAL CHIP	100	5%	1/10W
R531	1-216-845-11	METAL CHIP	100K	5%	1/10W
R532	1-216-845-11	METAL CHIP	100K	5%	1/10W
R533	1-216-833-11	METAL CHIP	10K	5%	1/10W
R534	1-216-833-11	METAL CHIP	10K	5%	1/10W
R535	1-216-833-11	METAL CHIP	10K	5%	1/10W
R536	1-216-845-11	METAL CHIP	100K	5%	1/10W
R537	1-216-845-11	METAL CHIP	100K	5%	1/10W (S2210S)
R538	1-216-845-11	METAL CHIP	100K	5%	1/10W (S2250EE)
R539	1-216-821-11	METAL CHIP	1K	5%	1/10W
R540	1-216-845-11	METAL CHIP	100K	5%	1/10W
R541	1-216-845-11	METAL CHIP	100K	5%	1/10W
R542	1-216-821-11	METAL CHIP	1K	5%	1/10W
R543	1-216-821-11	METAL CHIP	1K	5%	1/10W
R544	1-216-821-11	METAL CHIP	1K	5%	1/10W
R545	1-216-845-11	METAL CHIP	100K	5%	1/10W (S2210S)
R546	1-216-845-11	METAL CHIP	100K	5%	1/10W (S2210S)
R547	1-216-864-11	SHORT CHIP	0		
R549	1-216-845-11	METAL CHIP	100K	5%	1/10W (S2250EE)
R550	1-216-845-11	METAL CHIP	100K	5%	1/10W
R556	1-216-845-11	METAL CHIP	100K	5%	1/10W (S2210S)
R557	1-216-809-11	METAL CHIP	100	5%	1/10W
R558	1-216-821-11	METAL CHIP	1K	5%	1/10W
R561	1-216-845-11	METAL CHIP	100K	5%	1/10W
R563	1-216-845-11	METAL CHIP	100K	5%	1/10W
R564	1-216-845-11	METAL CHIP	100K	5%	1/10W (S2250EE)
R565	1-216-845-11	METAL CHIP	100K	5%	1/10W
R566	1-216-845-11	METAL CHIP	100K	5%	1/10W
R567	1-216-845-11	METAL CHIP	100K	5%	1/10W
R568	1-216-821-11	METAL CHIP	1K	5%	1/10W
R570	1-216-817-11	METAL CHIP	470	5%	1/10W
R573	1-216-845-11	METAL CHIP	100K	5%	1/10W (S2250EE)
R575	1-216-845-11	METAL CHIP	100K	5%	1/10W (S2210S)
R577	1-216-845-11	METAL CHIP	100K	5%	1/10W
R578	1-216-821-11	METAL CHIP	1K	5%	1/10W
R582	1-216-821-11	METAL CHIP	1K	5%	1/10W
R583	1-216-821-11	METAL CHIP	1K	5%	1/10W
R584	1-216-841-11	METAL CHIP	47K	5%	1/10W
R585	1-216-849-11	METAL CHIP	220K	5%	1/10W
R590	1-216-864-11	SHORT CHIP	0		
R601	1-216-845-11	METAL CHIP	100K	5%	1/10W
R609	1-216-821-11	METAL CHIP	1K	5%	1/10W
R631	1-249-425-11	CARBON	4.7K	5%	1/4W
R632	1-216-841-11	METAL CHIP	47K	5%	1/10W

MAIN **SENSOR** **SERVO**

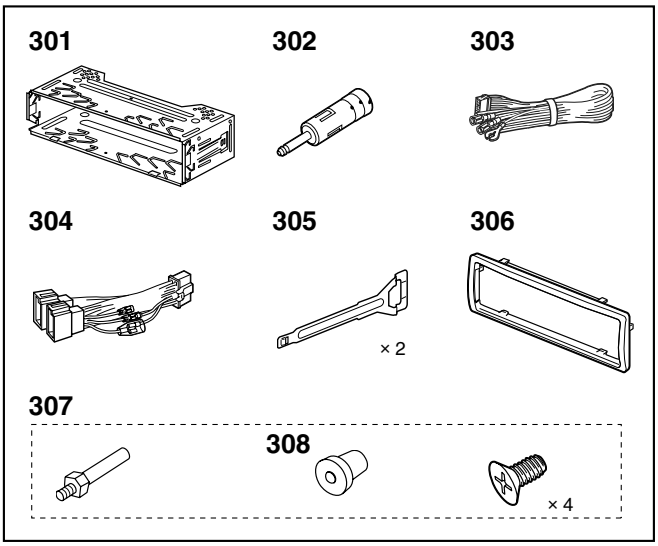
Ref. No.	Part No.	Description			Remark
R633	1-216-841-11	METAL CHIP	47K	5%	1/10W
R634	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R636	1-216-845-11	METAL CHIP	100K	5%	1/10W
R651	1-216-821-11	METAL CHIP	1K	5%	1/10W (S2250EE)
R652	1-216-841-11	METAL CHIP	47K	5%	1/10W (S2250EE)
R653	1-216-833-11	METAL CHIP	10K	5%	1/10W (S2250EE)
R654	1-216-833-11	METAL CHIP	10K	5%	1/10W (S2250EE)
R671	1-216-809-11	METAL CHIP	100	5%	1/10W
R672	1-216-809-11	METAL CHIP	100	5%	1/10W
R673	1-216-833-11	METAL CHIP	10K	5%	1/10W
R674	1-216-845-11	METAL CHIP	100K	5%	1/10W
R675	1-216-821-11	METAL CHIP	1K	5%	1/10W
R676	1-216-821-11	METAL CHIP	1K	5%	1/10W
R677	1-216-821-11	METAL CHIP	1K	5%	1/10W
R679	1-216-821-11	METAL CHIP	1K	5%	1/10W
R681	1-216-864-11	SHORT CHIP	0		
R705	1-216-809-11	METAL CHIP	100	5%	1/10W
R752	1-216-811-11	METAL CHIP	150	5%	1/10W
R756	1-216-841-11	METAL CHIP	47K	5%	1/10W
		< SWITCH >			
S502	1-571-478-11	SWITCH, SLIDE (FREQUENCY SELECT)			(S2210S)
S702	1-692-431-21	SWITCH, TACTILE (RESET)			
		< TUNER >			
TU1	A-3220-961-A	TUNER UNIT (TUX-032)			
		< VIBRATOR >			
X501	1-813-524-21	VIBRATOR, CERAMIC (18.432MHz)			
X502	1-813-202-11	VIBRATOR, CRYSTAL (32.768kHz)			
**********					
		SENSOR BOARD			
		**********			
		< SWITCH >			
SW2	1-529-566-61	SWITCH, PUSH (1 KEY) (SELF)			
SW3	1-529-566-61	SWITCH, PUSH (1 KEY) (DISC IN)			
**********					
	A-1082-772-A	SERVO BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C4	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C5	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C6	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C7	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C9	1-104-609-11	ELECT CHIP	100uF	20%	4V
C10	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C13	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C16	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C17	1-162-925-11	CERAMIC CHIP	68PF	5%	50V
C18	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V

Ref. No.	Part No.	Description			Remark
C19	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C20	1-164-245-11	CERAMIC CHIP	0.015uF	10%	25V
C21	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C22	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C23	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C24	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C27	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C28	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C29	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C31	1-164-245-11	CERAMIC CHIP	0.015uF	10%	25V
C32	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C33	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C34	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C35	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C36	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C37	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C38	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C39	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C40	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C41	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C42	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C43	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C45	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C47	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C48	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C49	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C51	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C52	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C53	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C57	1-115-416-11	CERAMIC CHIP	0.001uF	5%	25V
C58	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C59	1-126-208-21	ELECT CHIP	47uF	20%	4V
C60	1-112-195-11	ELECT	47uF	20%	4V
C61	1-126-208-21	ELECT CHIP	47uF	20%	4V
C62	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C64	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C65	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C67	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C72	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C80	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C101	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C102	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C103	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C105	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C106	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
		< CONNECTOR >			
CN1	1-691-380-21	CONNECTOR, FFC/FPC 16P			
CN2	1-817-275-21	CONNECTOR, BOARD TO BOARD 28P			
		< JUMPER RESISTOR >			
FB2	1-216-864-11	SHORT CHIP	0		
FB3	1-216-864-11	SHORT CHIP	0		
FB4	1-216-864-11	SHORT CHIP	0		
		< IC >			
IC1	6-707-327-01	IC BA5968FP-E2			
IC2	6-707-328-01	IC TC94A60MFG-301			

SERVO

Ref. No.	Part No.	Description			Remark
IC3	6-805-086-02	IC MB90487APFV-G-142-BNDE1			
IC6	6-705-364-01	IC R1114N151D-TR-FA			
		< TRANSISTOR >			
Q1	8-729-904-87	TRANSISTOR 2SB1197K-R			
Q2	8-729-904-87	TRANSISTOR 2SB1197K-R			
Q3	8-729-928-90	TRANSISTOR DTC114EE			
		< RESISTOR >			
R1	1-218-941-81	RES-CHIP	100	5%	1/16W
R2	1-208-699-11	METAL CHIP	4.7K	0.5%	1/16W
R3	1-208-912-11	METAL CHIP	11K	0.5%	1/16W
R4	1-218-969-11	RES-CHIP	22K	5%	1/16W
R5	1-218-969-11	RES-CHIP	22K	5%	1/16W
R6	1-218-929-11	RES-CHIP	10	5%	1/16W
R7	1-218-929-11	RES-CHIP	10	5%	1/16W
R8	1-218-967-11	RES-CHIP	15K	5%	1/16W
R9	1-218-967-11	RES-CHIP	15K	5%	1/16W
R10	1-218-965-11	RES-CHIP	10K	5%	1/16W
R11	1-218-965-11	RES-CHIP	10K	5%	1/16W
R12	1-218-977-11	RES-CHIP	100K	5%	1/16W
R13	1-218-969-11	RES-CHIP	22K	5%	1/16W
R16	1-218-967-11	RES-CHIP	15K	5%	1/16W
R17	1-218-973-11	RES-CHIP	47K	5%	1/16W
R19	1-218-967-11	RES-CHIP	15K	5%	1/16W
R21	1-218-973-11	RES-CHIP	47K	5%	1/16W
R22	1-218-990-81	SHORT CHIP	0		
R23	1-218-979-11	RES-CHIP	150K	5%	1/16W
R24	1-218-962-11	RES-CHIP	5.6K	5%	1/16W
R25	1-218-990-81	SHORT CHIP	0		
R26	1-218-941-81	RES-CHIP	100	5%	1/16W
R28	1-218-947-11	RES-CHIP	330	5%	1/16W
R40	1-218-941-81	RES-CHIP	100	5%	1/16W
R41	1-218-977-11	RES-CHIP	100K	5%	1/16W
R42	1-218-977-11	RES-CHIP	100K	5%	1/16W
R43	1-218-941-81	RES-CHIP	100	5%	1/16W
R44	1-218-941-81	RES-CHIP	100	5%	1/16W
R45	1-218-989-11	RES-CHIP	1M	5%	1/16W
R46	1-218-947-11	RES-CHIP	330	5%	1/16W
R47	1-218-977-11	RES-CHIP	100K	5%	1/16W
R48	1-218-941-81	RES-CHIP	100	5%	1/16W
R49	1-218-941-81	RES-CHIP	100	5%	1/16W
R50	1-218-941-81	RES-CHIP	100	5%	1/16W
R51	1-218-941-81	RES-CHIP	100	5%	1/16W
R52	1-218-945-11	RES-CHIP	220	5%	1/16W
R53	1-218-941-81	RES-CHIP	100	5%	1/16W
R54	1-218-941-81	RES-CHIP	100	5%	1/16W
R55	1-218-977-11	RES-CHIP	100K	5%	1/16W
R56	1-218-941-81	RES-CHIP	100	5%	1/16W
R57	1-218-941-81	RES-CHIP	100	5%	1/16W
R58	1-218-941-81	RES-CHIP	100	5%	1/16W
R59	1-218-977-11	RES-CHIP	100K	5%	1/16W
R60	1-218-977-11	RES-CHIP	100K	5%	1/16W
R61	1-218-977-11	RES-CHIP	100K	5%	1/16W
R62	1-218-977-11	RES-CHIP	100K	5%	1/16W
R63	1-218-977-11	RES-CHIP	100K	5%	1/16W
R64	1-218-977-11	RES-CHIP	100K	5%	1/16W
R65	1-218-941-81	RES-CHIP	100	5%	1/16W
R66	1-218-941-81	RES-CHIP	100	5%	1/16W
R67	1-218-941-81	RES-CHIP	100	5%	1/16W
R68	1-218-941-81	RES-CHIP	100	5%	1/16W
R69	1-218-941-81	RES-CHIP	100	5%	1/16W
R70	1-218-941-81	RES-CHIP	100	5%	1/16W
R71	1-220-804-11	RES-CHIP	2.2M	5%	1/16W
R72	1-218-941-81	RES-CHIP	100	5%	1/16W
R73	1-218-973-11	RES-CHIP	47K	5%	1/16W
R74	1-218-941-81	RES-CHIP	100	5%	1/16W
R77	1-218-941-81	RES-CHIP	100	5%	1/16W
R78	1-218-941-81	RES-CHIP	100	5%	1/16W
R80	1-218-941-81	RES-CHIP	100	5%	1/16W
R81	1-218-973-11	RES-CHIP	47K	5%	1/16W
R82	1-218-973-11	RES-CHIP	47K	5%	1/16W
R83	1-218-973-11	RES-CHIP	47K	5%	1/16W
R84	1-218-953-11	RES-CHIP	1K	5%	1/16W
R86	1-218-969-11	RES-CHIP	22K	5%	1/16W
R90	1-218-941-81	RES-CHIP	100	5%	1/16W
R91	1-218-941-81	RES-CHIP	100	5%	1/16W
R100	1-220-200-81	RES-CHIP	30K	5%	1/16W
R101	1-218-971-11	RES-CHIP	33K	5%	1/16W
R112	1-218-990-81	SHORT CHIP	0		
R113	1-218-990-81	SHORT CHIP	0		
R116	1-218-977-11	RES-CHIP	100K	5%	1/16W
R117	1-218-977-11	RES-CHIP	100K	5%	1/16W
R118	1-218-977-11	RES-CHIP	100K	5%	1/16W
R119	1-218-977-11	RES-CHIP	100K	5%	1/16W
R120	1-218-990-81	SHORT CHIP	0		
R121	1-218-990-81	SHORT CHIP	0		
R122	1-218-990-81	SHORT CHIP	0		
R123	1-218-990-81	SHORT CHIP	0		
R125	1-218-941-81	RES-CHIP	100	5%	1/16W
R126	1-218-941-81	RES-CHIP	100	5%	1/16W
R127	1-218-941-81	RES-CHIP	100	5%	1/16W
R128	1-218-941-81	RES-CHIP	100	5%	1/16W
R131	1-216-864-11	SHORT CHIP	0		
R132	1-218-962-11	RES-CHIP	5.6K	5%	1/16W
		< SWITCH >			
SW1	1-529-565-61	SWITCH, PUSH (1 KEY) (DOWN)			
		< VIBRATOR >			
X1	1-813-371-21	VIBRATOR, CERAMIC (12MHz)			
X2	1-795-561-21	VIBRATOR, CERAMIC (16.9344MHz)			
**********					
		MISCELLANEOUS			
		**********			
6	1-776-206-21	CORD (WITH CONNECTOR) (POWER) (S2210S)			
6	1-776-527-61	CORD (WITH CONNECTOR) (ISO) (POWER) (S2250EE)			
⚠153	8-820-207-12	OPTICAL PICK-UP (KSS1000E/K1RP)			
154	A-1075-645-A	CHASSIS (OP) SUB ASSY (including M901)			
F901	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A			
M902	A-3372-447-A	MOTOR ASSY, SL (SLED)			
M903	A-1075-643-A	MOTOR ASSY, LE (LOADING)			
SW4	1-571-099-11	SWITCH (1 KEY) (LIMIT)			
**********					

Ref. No.	Part No.	Description	Remark
		ACCESSORIES	
		**********	
	1-479-077-12	REMOTE COMMANDER (RM-X151) (S2210S)	
	2-348-404-61	MANUAL, INSTRUCTION, INSTALL (ENGLISH, SPANISH,TRADITIONAL CHINESE,FRENCH) (S2210S)	
	2-348-404-81	MANUAL, INSTRUCTION, INSTALL (ENGLISH, RUSSIAN) (S2250EE)	
	2-348-467-61	MANUAL, INSTRUCTION (ENGLISH,SPANISH, TRADITIONAL CHINESE,FRENCH) (S2210S)	
	2-348-467-81	MANUAL, INSTRUCTION (ENGLISH,RUSSIAN) (S2250EE)	
	2-548-729-01	LID, BATTERY CASE (for RM-X151) (S2210S)	
	X-2024-133-3	CASE ASSY (for FRONT PANEL)	
**********			
		PARTS FOR INSTALLATION AND CONNECTIONS	
		**********	
301	X-3382-647-1	FRAME ASSY, FITTING	
302	1-465-459-31	ADAPTOR, ANTENNA (S2250EE)	
303	1-776-206-21	CORD (WITH CONNECTOR) (POWER) (S2210S)	
304	1-776-527-61	CORD (WITH CONNECTOR) (ISO) (POWER) (S2250EE)	
305	3-246-471-01	KEY (FRAME)	
306	2-187-743-11	COLLAR	
307	X-3381-154-1	SCREW ASSY (BS4), FITTING	
308	3-349-410-11	BUSHING	



CDX-S2210/S2210S/S2210X/ S2250EE/SW330

SONY

SERVICE MANUAL

Ver. 1.2 2005.07

US Model
CDX-S2210/SW330

Canadian Model
CDX-S2210

E Model
CDX-S2210S/S2210X

East European Model
CDX-S2250EE

SUPPLEMENT-2

File this supplement with the service manual.

Subject : Change of CD mechanism.

This model provides three types of CD mechanisms.
Check the label on the chassis (T) when servicing the CD mechanism.

DISCRIMINATION

B T A □ □ □ □ □ □ □ □

Model Name

Factory
B : MG-611TA-186//Q (Refer to Supplement-1)
D : MG-611TA-186//K (Refer to Service Manual)
E : MG-611TA-186//C (Refer to Supplement-2)

9-879-323-82

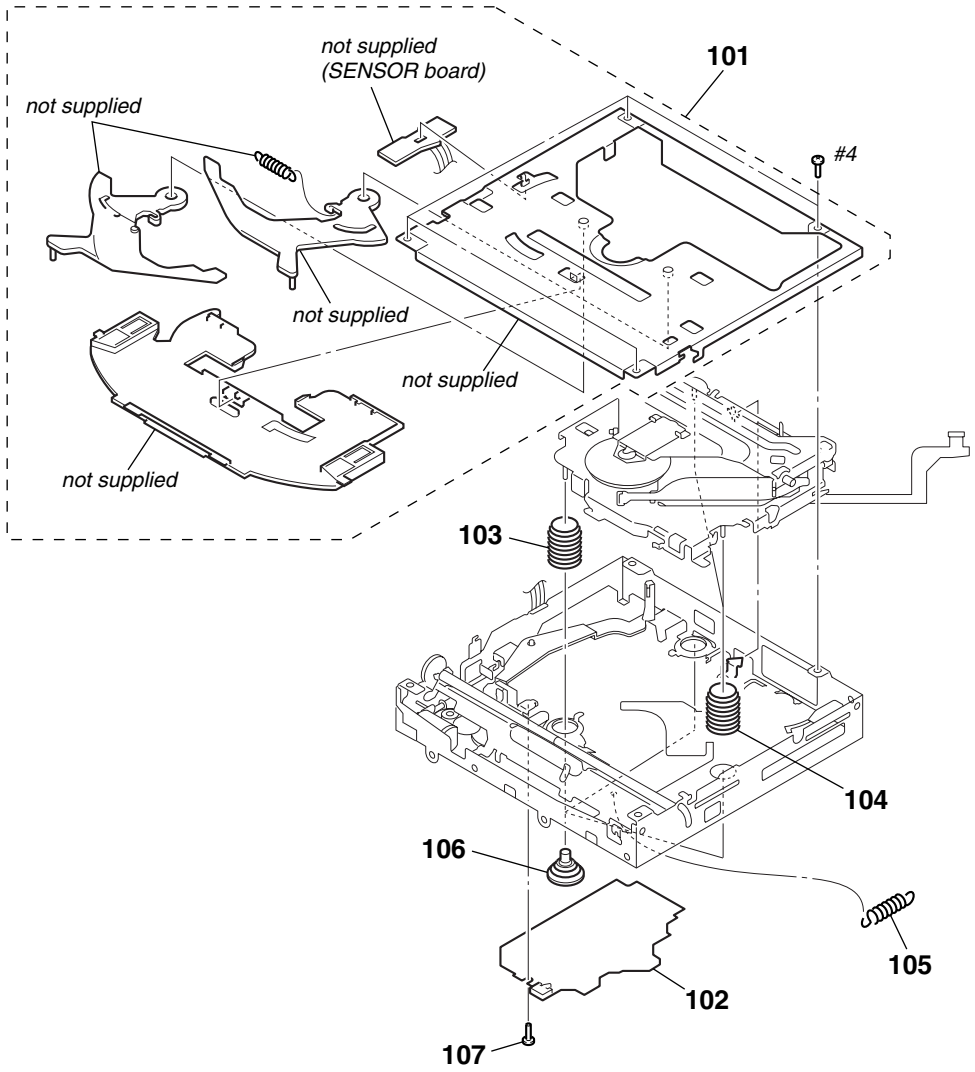
EXPLODED VIEWS

NOTE:
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example :
  KNOB, BALANCE (WHITE) ... (RED)
  ↑ Parts Color ↑ Cabinet's Color
- Accessories are given in the last of this parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

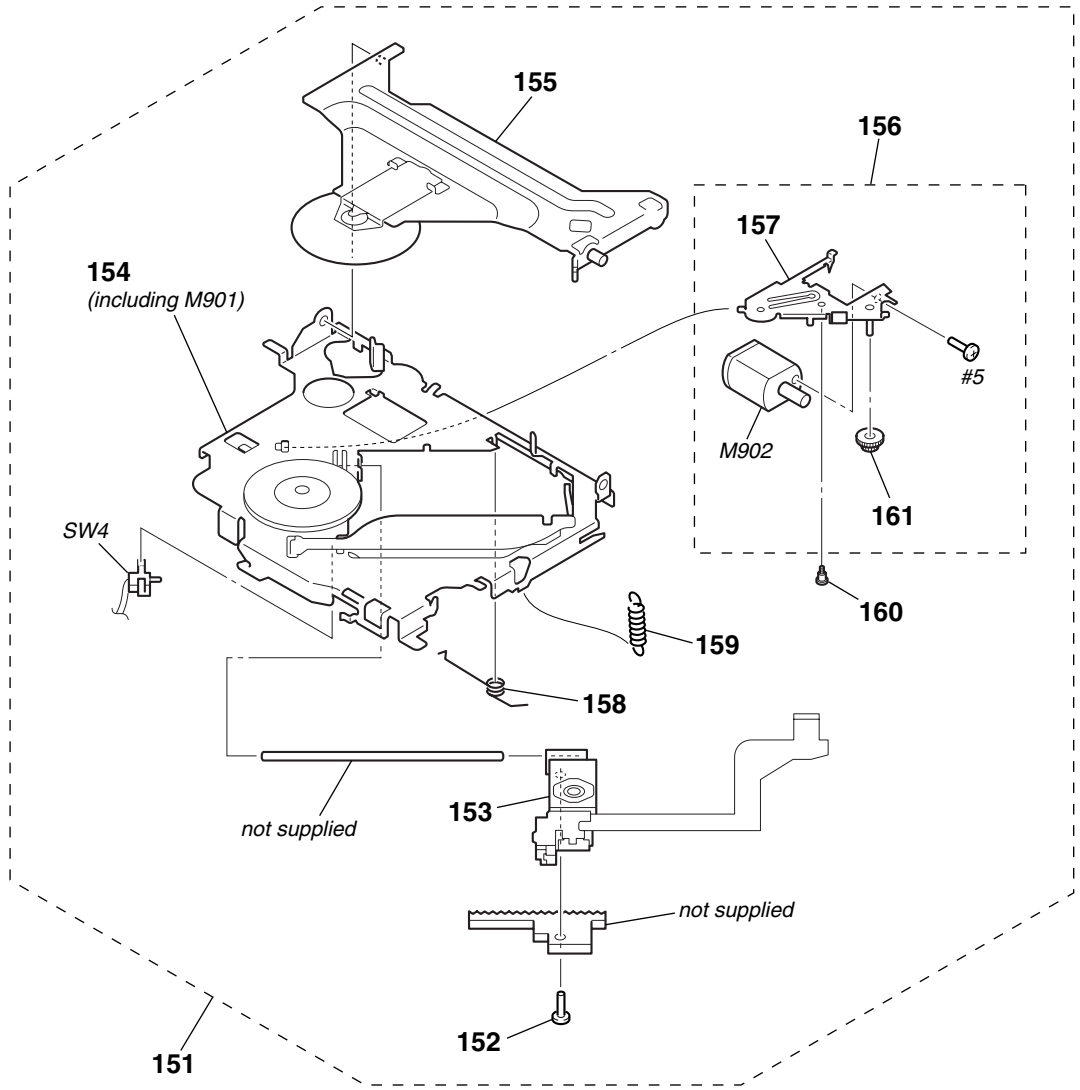
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

1. CD MECHANISM SECTION (1) (MG-611TA-186//C)



Ref. No.	Part No.	Description	Remark
101	A-1088-624-A	CHASSIS (T) SUB ASSY	
102	A-1092-999-A	SERVO BOARD, COMPLETE	
103	2-345-865-11	SPRING (DAMPER), COMPRESSION (BLACK)	
104	2-345-865-01	SPRING (DAMPER), COMPRESSION (NATURAL)	
105	2-345-767-21	SPRING (KF60), TENSION	
106	3-253-748-11	DAMPER (S)	
107	3-352-758-31	SCREW (M1.7X2.5), TOOTHED LOCK	
#4	7-627-552-87	SCREW, PRECISION +P 1.7X2.2	

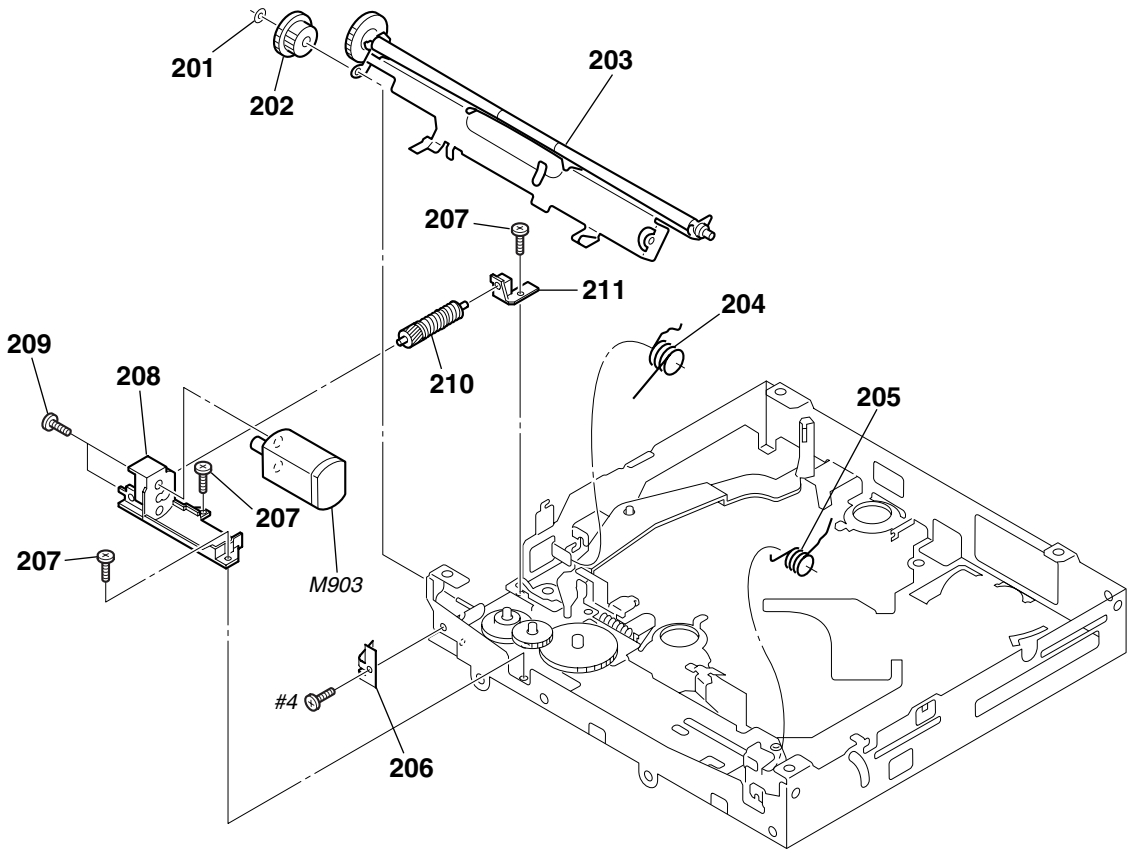
2. CD MECHANISM SECTION (2)
(MG-611TA-186//C)



Ref. No.	Part No.	Description	Remark
151	A-1088-612-A	CHASSIS (OP) COMPLETE ASSY	
152	3-316-938-91	SCREW (B1.4X5), TAPPING	
⚠153	8-820-207-12	OPTICAL PICK-UP (KSS1000E/K1RP)	
154	A-1088-615-A	CHASSIS (OP) SUB ASSY (including M901)	
155	A-1088-616-A	ARM SUB ASSY, CHUCKING	
156	A-1088-613-A	LEVER (SL) SUB ASSY	
157	X-2024-784-2	LEVER (SL) ASSY	

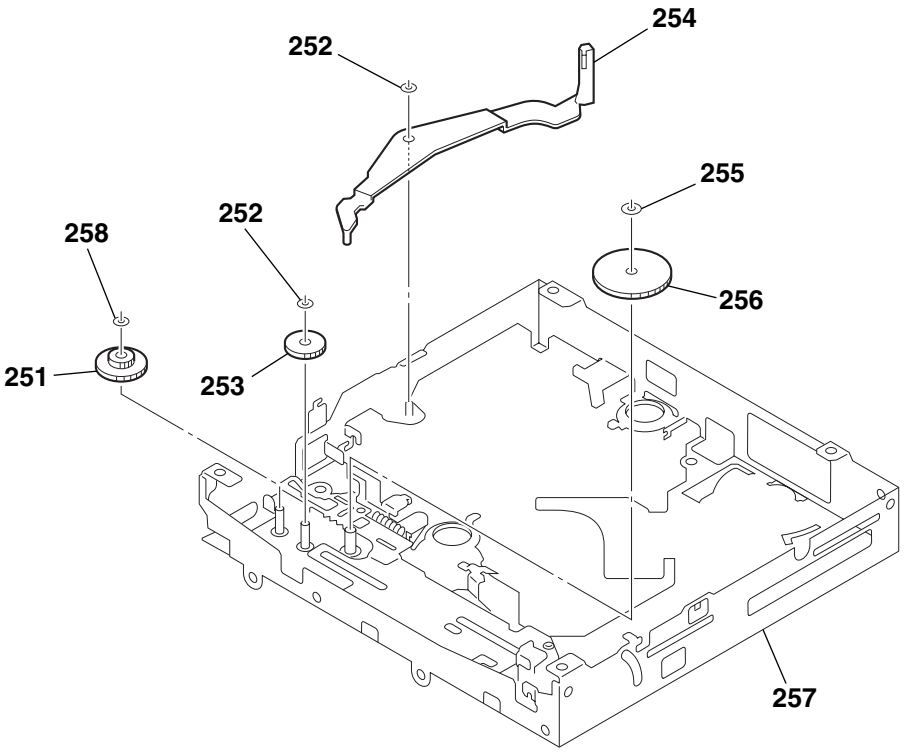
Ref. No.	Part No.	Description	Remark
158	3-261-959-21	SPRING (SL), TORSION	
159	3-253-736-21	SPRING (CHKG), TENSION	
160	3-264-165-21	SCREW	
161	3-253-742-21	WHEEL (SL), WORM	
M902	A-1088-614-A	MOTOR ASSY, SL (SLED)	
SW4	1-571-099-11	SWITCH (1 KEY) (LIMIT)	
#5	7-627-850-77	SCREW, PRECISION +P 1.4X1.8	

3. CD MECHANISM SECTION (3)
(MG-611TA-186//C)



Ref. No.	Part No.	Description	Remark
201	3-262-755-11	WASHER (1.1-2.5)	
202	2-186-699-21	GEAR (RA1)	
203	A-1088-618-A	ARM ASSY, ROLLER	
204	3-259-455-21	SPRING (RAL)	
205	3-253-713-21	SPRING (RAR)	
206	3-259-469-21	SPRING (LE), LEAF	
207	2-134-636-51	SCREW (M1.7X2.5)	
208	2-186-696-21	BRACKET (LEM-N)	
209	3-345-648-91	SCREW (M1.4), TOOTHED LOCK	
210	A-1088-623-A	GEAR (LE) ASSY	
211	2-186-697-21	BEARING (LEB-N)	
M903	A-1088-622-A	MOTOR ASSY, LE (LOADING)	
#4	7-627-552-87	SCREW, PRECISION +P 1.7X2.2	

4. CD MECHANISM SECTION (4) (MG-611TA-186//C)



Ref. No.	Part No.	Description	Remark
251	2-186-700-21	GEAR (CHK1)	
252	3-344-223-01	WASHER	
253	3-259-470-22	GEAR (LE1)	
254	3-253-755-21	LEVER (D)	
255	3-899-829-01	WASHER (SLIT)	
256	2-590-545-21	GEAR (LE2-M)	
257	A-1088-620-A	CHASSIS (M) BLOCK ASSY	
258	3-262-755-11	WASHER (1.1-2.5)	

REVISION HISTORY

Clicking the version allows you to jump to the revised page.
Also, clicking the version at the upper on the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.0	2004.12	New
1.1	2005.05	Production country change. (Supplement-1) (ENG-05003)
1.2	2005.07	Change of CD mechanism. (Supplement-2) (ECN-ECB00626)
1.3	2005.11	NOTE FOR REPLACEMENT OF THE IC501 is added. (SPM-05015)